THE BUILDER
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VOL. CXLVI MAY 25 1934 No. 4764

R.A. EXHIBITION, 1934.

"PROGRESS": An Allegory. Relief Panel.

BY MR. CHARLES L. J. DOMAN, R.B.S.

An Article on Sculpture at the Royal Academy will appear in our next issue.

MEETINGS

FRIDAY, *May* 25.

Town Planning Institute. Mr. H. V. Lanchester on "Height and Bulk of Buildings in Relation to their Requirements and Surroundings." At Caxton Hall, S.W.1. 6 p.m.

Institution of Municipal and County Engineers. South-Eastern District Meeting. At the Town Hall, Tunbridge Wells. 11.45 a.m.

MONDAY, *May* 28.

Royal Institute of British Architects. Mr. W. G. Newton on "The Planning of the Public School." 8 p.m.

TUESDAY, *May* 29.

Architectural Association. Mr. W. M. Dudok on "Buildings at Hilversum." 8 p.m.

London Society. Visit to the "Swakeleys," Ickenham, Middlesex. 2 p.m.

TUESDAY-SATURDAY, *May* 29-*June* 9.

Architectural Association. Exhibition of the work of Mr. W. M. Dudok. 10 a.m.-10 p.m.

THURSDAY, *May* 31.

Architecture Club. The 23rd Dinner. Discussion on Slum Clearance. At the Savoy Hotel, W.C.2. 7.45 p.m.

FRIDAY, *June* 1.

Institution of Sanitary Engineers. Visit to Battersea Power Station, 2.30 p.m.; and General Meeting, at the Hotel Belgravia, Grosvenor-gardens, S.W.1. 6 p.m.

Institution of Municipal and County Engineers. Meeting of the West Midland District. At Droitwich. 3 p.m.

SATURDAY, *June* 2.

Institution of Municipal and County Engineers. Southern District Meeting. At the Town Hall, Reading. 11 a.m.

Institution of Sanitary Engineers. Visit to the South Essex Water Works, Colchester. 12.30 p.m.

WEDNESDAY, *June* 6.

London Society. Annual Dinner. At the Hotel Victoria, Northumberland-avenue, W.C.2. 7.45 p.m.

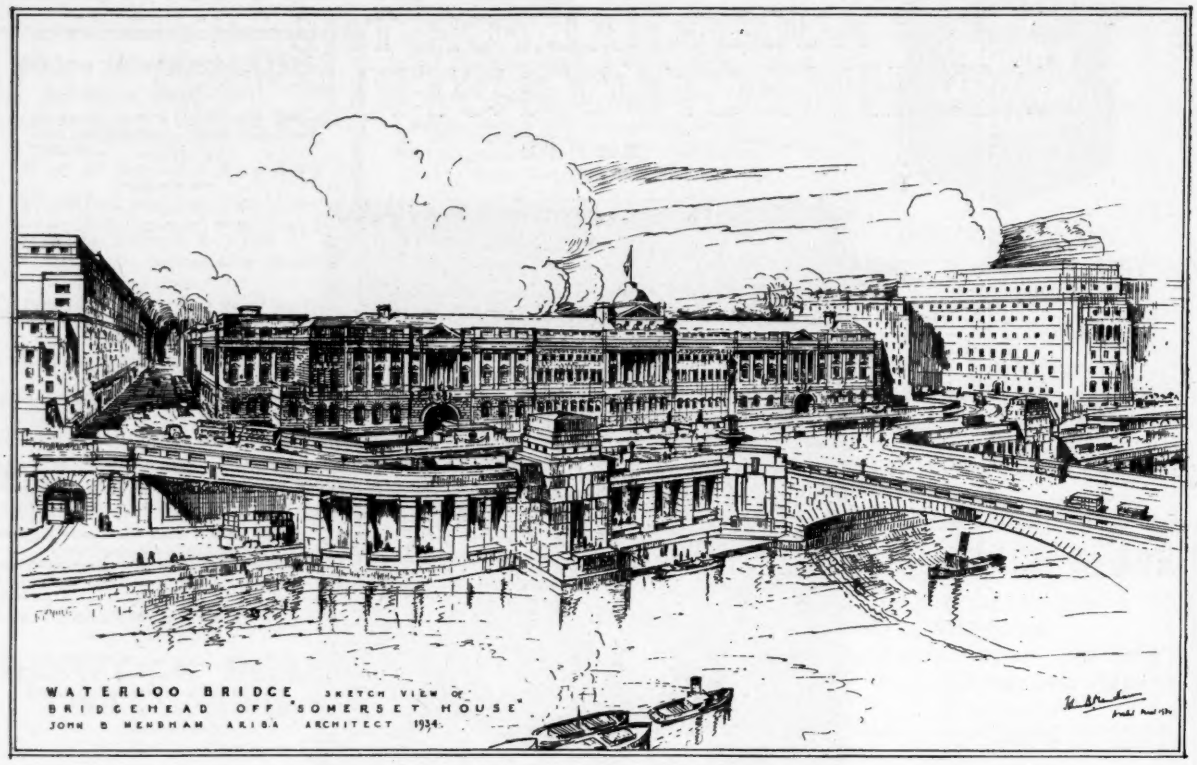
National Housing and Town Planning Council. Regional Conference of Local Authorities. At the County Hall, S.E.1.

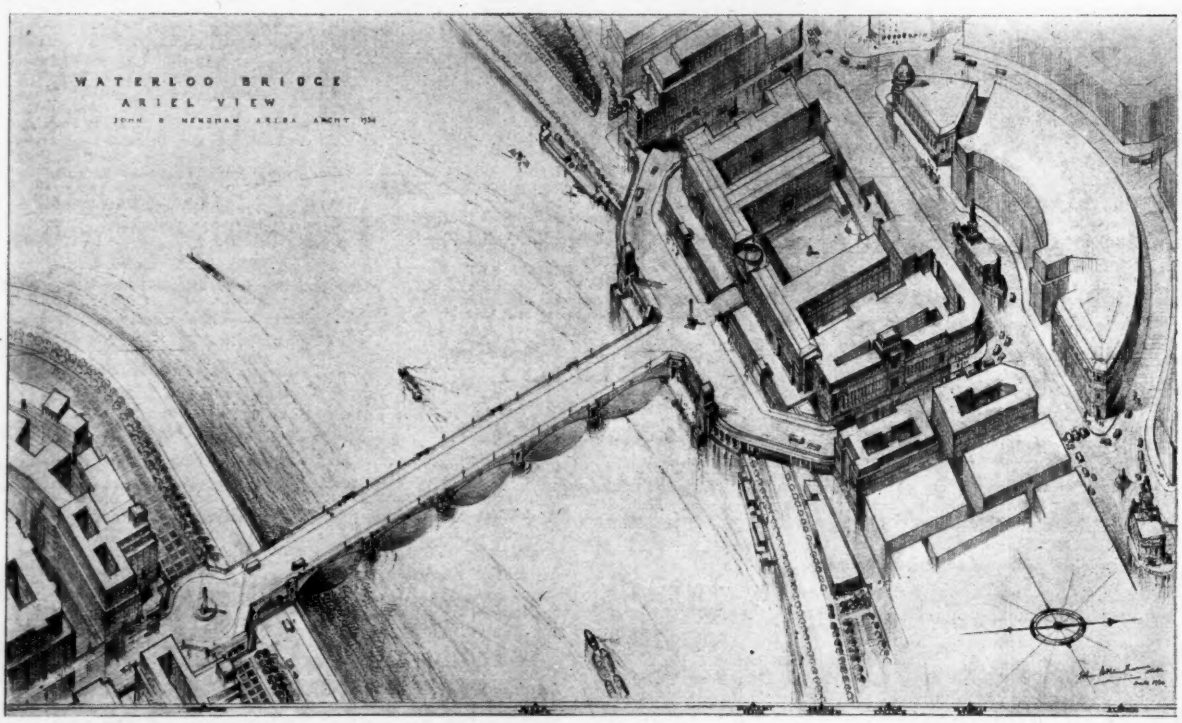
WEDNESDAY-FRIDAY, *June* 6-8.

Institution of Structural Engineers. Summer Conference. At Bath.

SATURDAY, *June* 9.

St. Paul's Ecclesiological Society. Visit to Abbey Church of the Holy Cross, Waltham.





BIRD'S-EYE VIEW.

PROPOSED SCHEME FOR A NEW WATERLOO BRIDGE.

BY MR. JOHN B. MENDHAM, A.R.I.B.A.

(See pages 886-888.)

FIRE GRADING OF BUILDINGS AND BUILDING MATERIALS.

RECENTLY we referred in our columns to the proposed idea of grading buildings in relation to the measures required by the L.C.C. for fire prevention, and to the Report on this which the Advisory Committee of the L.C.C. put forward for the consideration of the Council in framing the proposed amendments of the London Building Act of 1930. The proposals for the grading of all new buildings, as set out in the Report, are far reaching in their effect upon building construction and materials to be employed in the future, and have created much consternation amongst architects and builders.

If these proposals are put into force, the methods of building now employed in London will be revolutionised in order that construction and materials may comply with the Council's requirements in respect to what are termed " fire hazards."

It is common knowledge that, for a considerable time past, the Fire Brigade of the London County Council has ceased to recommend or make conditions in respect to fire prevention in buildings. But it is still necessary to obtain " consents " and concessions from so many other committees which exist variously for the purpose of dealing with these matters, that the stabilisation of anypracticable system of fire grading would be a matter of complicated reorganisation.

Up to the present many attempts to simplify the procedure in obtaining " consents " and concessions have failed entirely. At the present time, when it is desirable to invite and give every facility for building enterprises, it would seem inopportune to introduce new and oppressive legislation which would increase costs of buildings and delay their erection. Many housing reformers have given adequate reasons for thus pleading the need for increased accommodation, and pointing out the benefit to the country at large in the increase of employment and sound investments.

The Report clearly indicates that the proposals are put forward at this stage only " in order to enable the various technical and other organisations and persons interested to consider the proposals and to submit to the Council any criticisms or suggestions which they may wish to make with regard thereto." We hesitate to anticipate what in quality and quantity these criticisms and suggestions will be, having in mind the already somewhat exacting requirements of the London Building Act, 1930, both as to what materials are accepted as fire-resisting for general and special purposes of building under the Act, and other requirements of the Act as to fire-resistance generally. We do take exception, however, to one statement in the Report, viz., that the majority of existing buildings have been constructed *without any regard* to the risk of fire, and that it is only in the more modern structures that preventive measures have been introduced. This is surely a two-edged tool, for whilst it reflects, we think very unfairly, on the work of architects for the past 40 years, it surely implies a scathing criticism against the Council in its failure (thus alleged) to enforce those powers it has enjoyed during those 40 years to demand the installation of fire preventive devices and materials. But the Council has rigorously enforced the clear and explicit by-laws during those 40 years.

It may also be added that, outside the Metropolis, there are only two authorities which place any limitation whatever on the height or cubical content of buildings erected in their administrative areas. Nevertheless, the instances reported by other authorities of the *spreading* of fires are, in proportion, no more numerous than in London.

The scheme proposes some very ingenious methods of fire prevention ; but they are so complicated that it is doubtful whether they can be effectively carried out in practice without enormously increasing the cost of, and time taken in, building. Moreover, it will be noticed that since so many buildings of the factory, warehouse and other trade class are now being built as a speculation, it will be necessary that the speculator shall fit these with top grade preventive devices throughout, whereas, for the ultimate use to which the buildings are put much of this will be superfluous in all probability. If, on the other hand, a building is put up for a special and known use which only requires lower grade devices, the expense of refitting it with higher grade devices for any other use, or if it is proposed to extend it at any future time, will be prohibitive.

In general, the fire grade is proposed to be fixed by the height of the topmost story. That basis of grading seems unscientific, because the top story may be used eventually as a tank room only, or it may not extend over the ground area of the building. Again, a weak point is that the grading need not be uniform throughout a building ; but the grade divisions must be adequately separated to the satisfaction of the District Surveyor. This is surely a retrograde plan, because it is well known that statutes which do not in themselves clearly define their requirements, but leave important details to be determined by any one official, are seldom applied impartially or uniformly.

Most complicated regulations are suggested by the Report as to maximum height, cubic contents, floor areas, etc., and requirements as to mains, sprinklers, means of access, etc., these differing in relation to each of the four grades. These are : (*a*) Trade buildings : that is, those to which the public has free access for the purchase of goods, etc. ; (*b*) warehouse buildings : that is, those to which the public has not free access and which are used for storage ; (*c*) " hazardous risk " buildings, such as public garages, chemical works, etc. ; (*d*) multiple storage buildings of all classes other than (*a*), (*b*) and (*c*). Moreover, all these regulations have to be read in conjunction with the schedules of materials and the elements of construction referred to in the Report. We can foresee great difficulties in determining under which category a building is to be placed. It is true that there is left to the building owner a right of appeal to the London County Council itself, and from it to the Tribunal of Appeal. A Tribunal would be needed, empowered to act expeditiously and without oppressive charges to the appellant, and whose decisions would constitute a precedent for future guidance to the building trade. No doubt the Committee have worked out their recommendations with care, but before these recommendations can mature into law much modification will be needed.

We suggest to the L.C.C. that it would be well advised to do all in its power to encourage activity and enterprise in the building trade, for which aim is needed a general consolidation and simplification of the existing statutes rather than the superposition of supplementary legislation.

NOTES

The Plight of the Artist.

We hope the position of the architect and artist is not so bad as Sir Arthur Cope, R.A., thinks. Sir Arthur has just relinquished the Hon. Secretaryship of the Artists' Benevolent Institution after thirty years' service. Without doubt there is truth in his remarks, that: "The general public can have no idea of the magnitude of distress among painters and architects. I remember the case of one of the most distinguished black and white artists this country has ever produced. Towards the end of his life he was so terribly poor that we had to help him. The new idea of ugliness came in, and his commissions ceased. An artist's fortunes are subject to current taste. Then not many people are buying pictures unless they have money to spare for luxuries. In these days they are a small minority. Again, the builder does not call in the architect nowadays. He invents a building, divides it up into cubicles, and calls them flats." The position of the architect and assistant should improve, if it has not already done so, with the large amount of building in progress and anticipated. We may add that many builders of standing and repute are employing architects where housing developments are taking place, to their mutual advantage and to that of the house purchasers. Sir Arthur considers that the days of ugliness and monstrosities in art are numbered. Square heads, hands as big as a tower clock, stove-pipe legs and corrugated iron backgrounds, he said, would go, and in turn the sincere artist would have a chance. This opinion appears to be borne out by recent observations in the public press. There is a new spirit abroad in the arts generally, whose basis, we hope, is sincerity.

Professor Gropius at Liverpool.

Professor Walter Gropius, whose lecture to the Design and Industries Association is reported on another page, has visited the Liverpool School of Architecture, where he spoke to the students and members of the Liverpool Architectural Society on the new architecture. The Professor claimed that "in face of the proofs of the genuineness of the movement, no one who investigates its sources can still maintain that it is based on a traditional infatuation for technique *qua* technique, which blindly seeks to destroy all national ties, and is bound to end in a fanatical glorification of materialism. The appearance of co-operative working groups is characteristic of the last development of the new architecture, and the principle is very promising and appropriate to the spirit of our age, especially when the groups include engineers and economists." The effects of flying upon architecture were also noted by Herr Gropius, who said that the development of airways confronted the architect with the task of designing houses from the bird's-eye point of view as well as ordinary perspective. The utilisation of the flat roof—whose outstanding advantage was that it made possible a much freer type of planning for gardens—would tend to make our cities beautiful green-laid areas. A welcome to Professor Gropius was extended by Professor Lionel Budden, who said that his influence had been great and extensive throughout Europe.

The 1851 Exhibition.

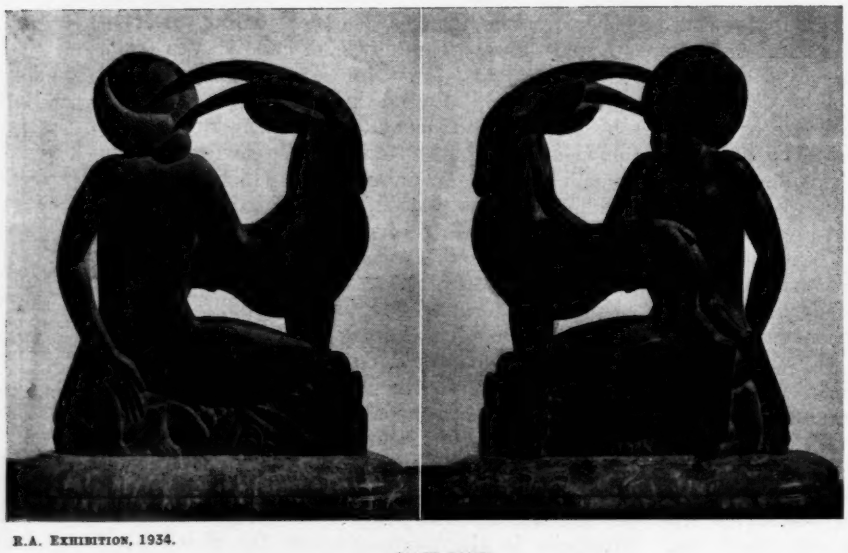
Those of our readers who would like to get an idea of the 1851 exhibition held in Hyde Park should visit the Architectural Association, where a series of some forty coloured lithographs, by Joseph Nash, brought together by Mr. F. R. Yerbury, are on view. These views are of considerable interest, recording, as they do, the general character of the exhibition, its stands, exhibits and the costumes of the period. As examples of the lithographer's art now rarely used they are fine specimens, the light, shade and atmosphere being skilfully shown. (See Austria No. 1.) Nash's task could not have been an easy one, but we should imagine he fulfilled it truthfully and accurately. It is now over eighty years ago that the exhibition was held. Paxton's masterpiece, the Crystal Palace, which contained it, was, as is well known, re-erected on Sydenham Hill, where it still stands as a prominent landmark. The witticism of a well-known architect, that it should be in a glass case, may be recalled. It is the fashion to laugh at the '51 exhibition, but in these lithographs we can compare it with some of our present-day work, which in time to come may perhaps give rise to some amusement, if it does not already do so.

A New Housing Bill.

A Whitehall correspondent writes:— A new Housing Bill is now in draft at the Ministry of Health. How far the measure will be presented to Parliament in the autumn in its present form is, of course, impossible to say, for legislation of this kind, which will inevitably involve expenditure out of the taxpayers' money, has to be rigorously scrutinised by the Treasury officials. The main object of the new Bill will be to endeavour to remedy overcrowding. In spite of the building boom now in progress, it is felt that some State assistance must be given for providing better accommodation for the man who is earning only £2 10s. a week, but the Bill will undoubtedly be linked up with provisions for the re-development of the cores of old towns, and the re-arrangement of streets. It is admitted by those concerned that expenditure of public money must be involved, but that savings can be effected by co-operation between the Ministry of Health and local authorities, so as to lead to intelligent re-development.

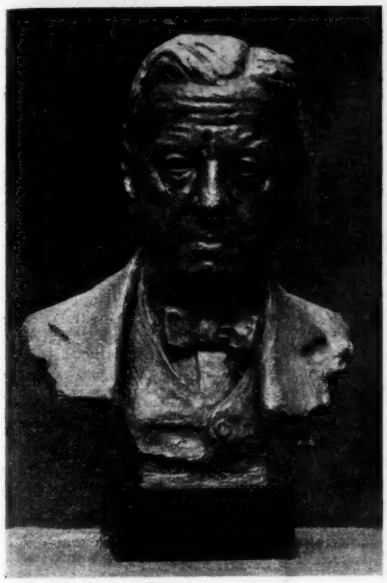
National Housing.

A report which, at the present time, is especially valuable has been issued by the National Housing Committee. This committee has formed itself "for the purpose of examining the vital problem of national housing," and has for its chairman Lord Amulree. Extracts from the report are given elsewhere, but the fullest possible measure of attention should be directed to the proposals contained if only because they are not only practical, but are capable of being put speedily into operation. The committee point out that (as we have often said in these columns) private enterprise cannot meet the needs of working class



R.A. Exhibition, 1934.

SLATE PANEL.
BY MR. ESTCOURT J. CLACK.



R.A. Exhibition, 1934.
BUST OF TERRICK WILLIAMS, R.A.
BY MR. GEORGE H. PAULIN.

families which need houses at an inclusive rent of not more than 10s. per week. The committee propose the formation of a Housing Commission under the Minister of Health to carry through the erection of a million low-rented houses in ten years. The Commission would work in full co-operation with local authorities, and money would be raised by the issue of National Housing Stock at 3½ per cent., Government guaranteed. The importance of a planned campaign is not overlooked. We heartily recommend our readers to study closely the suggestions contained in the Report.

Housing Scheme.

A CORRESPONDENT informs us that an unusually ingenious housing scheme is making good progress at Cambridge. This is being organised by a Public Utility Society known as the Hundred Houses Society, Ltd. In Cambridge there are many families where there is one child or less, and whose weekly wages vary from £2 to £3 15s. For the last eighteen months the Borough Council have adopted the policy of refusing to allocate houses to young married couples who have not more than one child. But such couples are often in a position to pay regularly a moderate weekly rent, and it is claimed that to house them is a profitable as well as a public-spirited undertaking. There is not enough profit in it to attract the speculative builder, and the tenants cannot afford to buy the houses which building societies are prepared to finance. The Corporation have entered into an unusual bargain with the Society. The Council is lending nine-tenths of the capital at 4 per cent., and also providing a site, developed with roads, at a nominal ground rent for a period of 40 years, on condition that they become the sole owner at the end of this period.

Maiden Castle, Dorset

THE Society of Antiquaries, in association with the Dorset Natural History and Archæological Society, is making an appeal for £1,200 for the excavation of the great fortified hill-town of Maiden Castle, near Dorchester (Dorset), which is the finest earthwork of its kind in the British Isles, and is probably unsurpassed in Europe. It has never been scientifically explored, and we can at present only guess its age, the character of the civilisation or civilisations which it represents, and its significance in the history or prehistory of the country. The earthwork itself is clearly of more than one period. Cutting off rather more than one-third of the eastern end are traces of a crossbank, now largely obliterated but originally (it would seem) forming the western limit of the enclosure. Later, the earthwork was enlarged in scale and area to its present size of no less than 108 acres, and it is to this later period that the vast western entrance, with its succession of no fewer than seven banks, may be referred. Later again, during the Roman era, a building or group of buildings—including perhaps a temple—was erected within the original eastern earthwork. The sum mentioned must be raised before the work of excavation is begun at the end of July next. Subscriptions should be sent to Lieut.-Col. C. D. Drew, D.S.O., F.S.A., Treasurer of the Maiden Castle Excavation Fund, Dudsbury House, Longham, Wimborne, Dorset.

Workmen's Dwellings, Oxford.

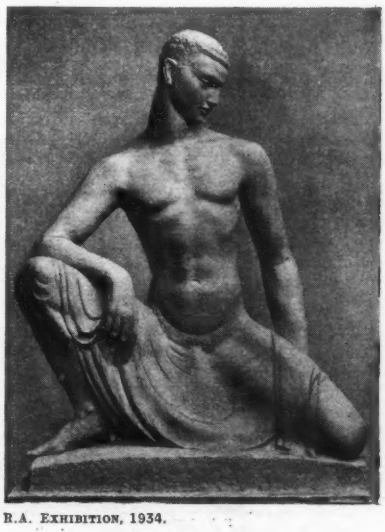
WE are informed that at the annual meeting of the Oxford Preservation Trust of June 2 details will be given of conversations that have been held with representatives of the building industry in Oxford. As a result of these it has been decided, in principle, that it would be desirable that a public utility company should be formed in Oxford for the purpose of building workmen's dwellings on a plan and design to be approved by the trust in the event of a suitable site being available. The company will be entirely separated from the trust and will have an independent director. The trustees believe that an enterprise of this kind could be carried through in Oxford, and would not only be on sound financial lines, but would have the double advantage of providing a good model for the imitation of other localities, and of relieving housing congestion in Oxford.

The Building Industry in America.

A CORRESPONDENT writes: "A building expert who was in New York and several of the American cities a short time ago tells me that the situation in the building world is deplorable, in spite of all the optimistic messages sent by correspondents. There are many thousands of offices and skyscrapers now standing empty in New York. The Empire State Building is usually referred to on the music-hall stages as the 'empty State building,' and after dark only about 5 per cent. of the rooms are illuminated. Some of the magnificent flats-de-luxe, known as 'triplex' flats, are unlet. These are flats with three stories fitted like palaces and rented at £5,000 a year. According to the present outlook they are never likely to be occupied by the persons for whom they were intended. The finance companies which have done so much to encourage building enterprise are in many cases bankrupt, and the investors have lost their money. In short, the bubble of speculation in real estate has burst, and the future is regarded as quite uncertain. After hearing my friend's account, I felt that the British building industry had much cause for thankfulness."

Modern Landscapes.

IN his essay, "Modern Landscapes," we are indebted to Mr. Clough Williams - Ellis for this excellent description: "There came a time when England, as I verily believe, stood forth as the loveliest thing that God and man had ever made between them. There is a cloud of witness to this effect . . . And to what have we lost it, this comely, ordered Arcady? . . . I stood on a sixty-foot reinforced concrete motorway along which hooted and thundered an immense and largely unnecessary traffic at an extravagant speed between uncompromising palisades of steel and concrete. A few yards from the Common's end stood a shed of corrugated iron that a score of eye-splitting signs in crude enamels proclaimed to be a garage."



R.A. Exhibition, 1934.
"YOUTH," BRONZE.
BY MISS WINIFRED TURNER.

GENERAL NEWS

Professional Announcement.

Mr. A. Douglas Clare, M.C., A.R.I.B.A., has opened an office at 44, Bedford-row, Holborn, W.C.1 (telephone : Holborn 4168), and will be glad to receive trade catalogues, etc.

An R.I.B.A. Election.

Mr. J. Grey West, O.B.E., Chief Architect to H.M. Office of Works, has been elected a Fellow, R.I.B.A.

Architecture at the Royal Academy.

In the second of our articles on this subject, published last week, we referred to the design of Mr. A. W. Blomfield's proposed licensed house at Hamsey Green. The perspective was by Mr. W. Norman Worrall, and not as stated last week.

Mr. H. L. G. Pilkington.

Mr. H. L. G. Pilkington has left London to take up an appointment with a firm of architects in Johannesburg. Mr. Pilkington's drawing of the Chapel of St. Michael and St. George is exhibited in this year's Royal Academy, and was illustrated in our issue for May 11. The new carvings depicted are the work of Mr. W. Godfrey Allen, F.S.A., F.R.I.B.A., Surveyor to the Fabric.

New Architects' Association, Ireland.

A new association has been formed in Dublin for Bachelors of Architecture of the National University of Ireland. Its objects are the advancement of architecture and the mutual help and co-operation of members. At the first annual meeting held at 87, Merrion-square, Dublin, last week, Mr. Vincent Kelly, F.R.I.B.A., was elected the first President; Mr. John O'Gorman was appointed secretary, and Mr. T. P. Kennedy and Mr. M. J. M'Dermot were elected members of the first committee.

It is stated that the new Association is making good progress.

Architectural Association : Annual Reception.

The annual reception of the Architectural Association, held at 34-36, Bedford-square, W.C., on Thursday, May 17, was a very successful function. About a thousand guests attended, and were received by the President, Mr. C. Lovett Gill, F.R.I.B.A., and Mrs. Gill. There were many attractions, not the least of which was the band of the Welsh Guards, which played in the library. Four extremely interesting exhibitions were on view, as follows: Mr. William Walcot's scheme for the replanning of Central London; an exhibition of coloured lithographs of the 1851 Exhibition; some original woodcuts of old Swedish architecture by Waldemar Bernhard; and an exhibition of students' drawings. A feature of practical interest was the opening of the new automatic heating plant for inspection. Dancing, which took place from 10 p.m. to 2.30 a.m., brought to a close a most enjoyable and successful function.

COMPETITION NEWS

Worksop Library Designs.

It is stated that in spite of the ban imposed by the Royal Institute of British Architects, 300 designs were submitted for the new central library and museum proposed to be erected by the Worksop Borough Council in Memorial-avenue. These have been reduced by a sub-committee to 20, for consideration by the full council.

Swinton and Pendlebury Municipal Buildings.

Swinton and Pendlebury U.D.C. invite architects of British nationality to submit designs in competition for new municipal offices. Premiums of £150, £100 and £75 are offered, and Mr. J. R. Adamson, F.R.I.B.A., of Bolton, has been appointed assessor. Conditions may be obtained upon deposit of £1 1s. from Mr. William Carter, M.B.E., clerk, Council Offices, Swinton, Manchester. The last date for sending questions is June 11, and the last date for submission of designs is August 17.

Bedford School Competition.

Bedford T.C., at its meeting on Wednesday night, approved the selection of the following six architects to take part in the limited competition for the erection of a school at London-road :—

Messrs. Annesley Brown and Hiscock, FF.R.I.B.A.; Mr. A. W. Kenyon, F.R.I.B.A.; Mr. A. O. Chatterley, A.R.I.B.A.; Mr. Louis de Soissons, S.A.D.G., F.R.I.B.A.; Messrs. Foden, Hemm and Williams, A.R.I.B.A.; and Mr. O. P. Milne, F.R.I.B.A.

The assessor is Mr. Julian Leathart, F.R.I.B.A. Mr. F. S. Henniker has been appointed quantity surveyor. The winner will receive the job at a commission of 5 per cent. Each unsuccessful competitor will receive a fee of 25 guineas. The closing date is July 31.

CURRENT COMPETITIONS.

	Particulars published in "Builder."	Sending-in date.
Competition for an "Ideal Village," promoted by the proprietors of *The Builder*. Premiums of £50, £15 and £10. Mr. D. Barclay Niven, F.R.I.B.A., assessor	Jan. 19	May 29
Competitions for designs for fireplaces. Organised by Iffley Brick Fireplaces Co., Ltd., and Building Centre. Prizes: £25, £10 and £5. Details from Building Centre, 158, New Bond-street, W.	April 27	June 11
Stand for Venesta, Ltd., at Building Exhibition. Prizes of £100 and four of £10. Jury of assessors. Conditions from Venesta, Ltd., Vintry House, London, E.C.4. Limited to architects under 30 on Jan. 31, 1935	April 6	June 23
Council offices, Slough, for U.D.C. Mr. H. S. Goodhart-Rendel, F.R.I.B.A., assessor. Premiums, £250, £150, £100.	March 23	June 26

R.A. EXHIBITION, 1934.

THE LATE SIR HENRY FIELDING DICKENS, K.C.: Relief Panel.

BY MR. CHARLES L. J. DOMAN, R.B.S.

CORRESPONDENCE

Greater London's Problems.

SIR,—May I return once more to the important questions of housing and planning in Greater London? It is indeed satisfactory that the Town Planning Committee of the newly-elected London County Council has appointed a sub-Committee to consider and report upon the desirability of preparing a town plan for the administrative county area. This step will be welcomed by all planners, but it surely does not go nearly far enough.

It is absolutely essential that an operative master-plan should be prepared for the whole of the Greater London Region—which covers 1,846 square miles, houses nearly 9,000,000 people, and embraces practically all land within a radius of 25 miles from Charing Cross. This incontestable fact was recognised by the Minister of Health in his Circular (1305) explaining the Town and Country Planning Act, 1932, in the following terms :—

> "Where neighbouring districts have common interests or where they form one economic unit, there is obvious advantage in having one master-plan for the whole unit providing at least for the large matters of regional importance. . . . The better practice is to appoint an executive Regional Committee, with powers to prepare an operative master-plan."

Unfortunately, it is clear from a statement made by Sir Hilton Young in the House of Commons on February 8, that an executive Regional Committee cannot be successfully established because of the conflicting views and interests of the 160 different local authorities who at present control the destiny of Greater London.

There are, moreover, additional reasons for preparing an efficient master-plan for the region. In consequence of great pressure from housing reformers of all parties, the Minister of Health has at last been forced to acknowledge that overcrowding among the poorer classes constitutes a problem as grave as that of slum clearance, and when addressing the Association of Municipal Corporations recently he foreshadowed the introduction of a comprehensive Bill to deal with overcrowding, reconditioning, etc. It seems likely that substantial Exchequer grants will be provided for the construction of block-dwellings—probably as high as ten stories—in some of the inner Metropolitan Boroughs.

While the erection of a certain number of these skyscraper flats may possibly be unavoidable, it will be deplorable if these proposals are put forward as a substitute for a well-devised scheme for the decentralisation of certain industries in properly planned and organised "satellite" towns. The paramount need in London is to reduce congestion, but this will remain—vertically rather than horizontally—in those areas where multi-story tenement buildings are erected. There are, in fact, many serious objections to these huge block-dwellings for the poorer classes.

London must be reorganised, and I contend that these impending developments reinforce my insistent demand for the appointment of a Royal Commission to inquire into and report both upon Greater London's housing and planning problems and also upon the whole question of the future government of this vastly important region.

H. L. NATHAN.

House of Commons,
Westminster, S.W.1.

Notts, Derby and Lincs Architecture Medal.

The bronze medal offered by the Nottingham, Derby and Lincoln Architectural Society for the best building erected within the district during the three years ended December 31 last has been awarded to Mr. T. Cecil Howitt, F.R.I.B.A., of Nottingham, for his design of the Raleigh Cycle Co.'s new offices in Lenton-boulevard. A suitably inscribed plaque will be placed on the building at a later date. Fourteen buildings were judged by a jury under the chairmanship of Mr. H. T. Buckland, F.R.I.B.A.

ARCHITECTURE AT THE ROYAL ACADEMY—III.

In any exhibition of English architecture, it is inevitable that domestic work must predominate, unless some predordained specialisation has excluded this branch of the art; for the Englishman of all times has been supreme at home-building. The present time is no exception to the rule, and we can say, without fear of contradiction from any foreign neighbour, that there is no better domestic architecture at the present day than that produced by the English architect. And having, so to speak, anchored the speciality to this small island, we can say also that never have there been so many practising architects who produce domestic work up to a high national standard.

It follows, then, that in spite of the small scale of the subjects, the domestic building section of such an exhibition as this must be paid a large measure of respect. Possibly arising out of the high standard which we are thus led to expect, some disappointment at that chosen to represent current activity may be understood among those who have visited this exhibition with hopes perhaps too highly keyed.

We have already referred to an outstanding exhibit by Mr. Oliver Hill (No. 1363), a simple subject which reaches easily above mediocre neighbours. An ambitious set of drawings by Mr. Kenneth Wright (Nos. 1330, 1391), and an interior by Mr. James P. Smith, in strong, able realism, illustrate Eltham Hall, incorporating the Great Hall of Eltham Palace, by Messrs. the Hon. John Seely and Paul Paget. This is a pleasing group of buildings which suggests an able plan, while the interior of the dining hall is unusually treated, and with considerable merit.

Mr. Guy Dawber exhibits the full Tudor repertoire in a charming courtyard of the "Homestall," Sussex (No. 1358), illustrated by a coloured sketch by Mr. Leonard Squirrell. "Elmstree Farm House" (No. 1361), by Mr. Walter Tapper, A.R.A., shows a sound stone domestic treatment in elevation, as does No. 1346, "Chippinghurst Manor," Oxon, by Mr. R. Fielding Dodd. Mr. Farey illustrates the latter with a very able landscape background. Mr. William A. Forsyth's "House at Tunbridge Wells" (No. 362) has sound qualities. No. 1364, "House at Richmond," by Mr. Gordon Allen, and Sir Banister Fletcher's "Coneybury," Walton Heath (No. 1465) are interesting exhibits.

No. 1357, "A House at Seaford, entrance front," by Mr. J. Henry Sellers, deserves special comment as an honest and worthy exhibit. The beautifully drawn half-inch detail by Mr. Bernard Lang, declares sensitive and scholarly intent, while the photograph proves that good building arises out of this quality of design. Mr. Edgar Wood's "Monte Calvario," Porto Maurizio, Italy (No. 1478) is delightful and fanciful.

We like the sympathetic feeling for a delightful material which Mr. Andrew N. Prentice shows in No. 1368, "Design for a Cottage with Thatched Roof," with a charming little line sketch by way of annotating the drawing.

Two strong black-and-white perspectives illustrate Mr. Alwyn Underdown's "House, East Dean Estate, Sussex" (Nos. 1325 and 1337). In the latter an impressive chimney massing appears, to which Mr. R. S. Cockrell's draughtsmanship does full justice.

"A House at Christchurch Mount, Epsom," by Mr. Thomas J. R. Winn (No. 1347), is illustrated with a fresh little elevation, conventionally rendered in a style that appeals to the client of taste.

"Lord Rothermere's House, Regent's Park, N.W.," by Mr. Gerald Warren, is a vast structure, in which rather queer scrolled gables settle pleasantly into a green and white composition. (No. 1352.) Work not unlike this latter is exhibited by Mr. Oliver Law in No. 1354, "House at Addington," illustrated by Mr. J. D. Harvey.

Mr. Cyril A. Farey shows a "Week-end Cottage in Buckinghamshire," which appears as a secluded and dignified little residence. (No. 1371.)

"No. 5, The Grove, Highgate, N.," by Mr. C. H. James, is in character with its neighbourhood, in unaffected style. (No. 1348). But why this passion for the horizontal bar window, which we see in several otherwise traditional studies in the exhibition, including one by Sir Giles Scott.

Mr. Louis de Soissons has some good sound housing to exhibit in No. 1370, "Cottages, Prince's-road, Duchy of Cornwall Estate," the drawing of which, by Mr. J. D. M. Harvey, is very sympathetic. "No. 9 and 10, Hyde Park-terrace," by Mr. Septimus Warwick, is an important building, but somewhat disturbed by the bays which gash the front, and an unhappy division of string course. Work of equal size, by Messrs. Stanley Hall, Easton and Robertson, is shown in No. 1389, "Avenue Close, Avenue-road, N.W." in which a struggle between the old and new orders is satisfied within a fresh treatment.

Messrs. Knapp-Fisher, Powell and Russell have shown better work than their exhibit, No. 1351, "House at Angmering-on-Sea," which is, however, sufficiently sound to build—probably better than the rendering would appear to suggest.

No. 1331, "House at Roedean," by Mr. Alfred A. Ospalak. No. 1355, "House in Kent," by Mr. Robert Lowry, No. 1359, "House at Shamley Green, Surrey," by Mr. Hugh R. H. Eades; and No. 1467, "House at Stevenage," by Mr. John Leech, all have points of interest.

In the best of these domestic studies we see a tradition becoming more firmly entrenched, in which the eighteenth-century spirit, emancipated to suit the convenience and taste of the age, predominates. We see no sign that the concrete architecture of the Continent has gained any real foothold in the field of domestic architecture, and in this we can feel few misgivings, since the prospect of the imitative speculator spreading, according to his lights, square white boxes about the landscape, modelled on those made tolerable by some able designers, is too horrible to contemplate.

At the same time, we see no new great figure of the stature of a Shaw or a Lutyens appearing to lift contemporary effort out of the dead level of the ordinary. Such inspired individuals arrive in their own good time, and the absence of such as these must not obscure the sound, steady merit which is already pervading the field of architectural practice throughout the length and breadth of the land. The 1934 Exhibition may be just a quiet prelude for something more dramatic and startling to come.

OBITUARY.

MR. CASS GILBERT.

We regret to record the death of Mr. Cass Gilbert, the distinguished American architect. Mr. Gilbert was staying at Brockenhurst, New Forest, Hampshire, and death is believed to be due to heart failure. He was in his seventy-fifth year.

Mr. Gilbert, who was born at Zanesville, Ohio, and was educated at Malcalester College, Minneapolis, was a pupil of Stanford White. One of the most successful of modern American architects, he will be chiefly remembered, perhaps, for his Woolworth Building, New York, which, completed in 1912, has 57 stories, rises to a height of 760 feet, and, until the erection of the Empire State Building, was, with the exception of the Eiffel Tower, the highest building in the world. The Woolworth Building, however, conceived in the Gothic manner, was not a characteristic work of Gilbert, who, though attached to no definitely historical style, had a preference for Classical and Renaissance forms, which shows itself in such works as the Art Museum at St. Louis, the Waterbury National Bank at Connecticut, and the Federal Reserve Bank at Minneapolis. His capacity for working in modern materials and in a modern manner was well shown in his United States Army Supply Base at Brooklyn, a concrete building of simple and effective composition.

Gilbert was, perhaps, the most productive architect of his generation in America, and a list of his most important buildings would show his extraordinary range and versatility. Among these may be mentioned the Endicott Building and the State Capitol at St. Paul, the Custom House and Post Office, New York, the McKinley Memorial at Canton, Ohio, the Soldiers' and Sailors' Memorial Hall at Pittsburg, the Boston Stock Exchange, and the Detroit Public Library (illustrated in our issue for January 7, 1921). Mention should be made of his designs for the St. Louis Exposition, his plan for the University of Minnesota, the Hudson River Bridge, the United States Chamber of Commerce at Washington, the West Virginia State Capitol, and the new Supreme Court of the United States.

Mr. Gilbert received many honours. In 1906 he was elected an honorary corresponding member of the Royal Institute of British Architects, and in 1930 the Royal Academy also elected him an honorary corresponding member. In America he had been president of the National Academy of Design, of the American Institute of Architects, and of the Architectural League of New York, and had been similarly honoured by other associations of art and letters. He also held many honorary degrees, and was a Knight of the Legion of Honour.

A NEW SCHEME FOR WATERLOO BRIDGE

We illustrate this week a scheme for a proposed new Waterloo Bridge, in conjunction with the linking up of Charing Cross Station and the town planning of the Surrey side of the Thames. This scheme, which is now before the L.C.C. for consideration, has been prepared by Mr. John B. Mendham, A.R.I.B.A., F.S.I., from whose description we take the following extracts :—

The scheme is divided into three sections, as follows : (1) Waterloo Bridge; (2) future Charing Cross-road bridge; (3) lay-out of the land on the south side of the Thames in connection with traffic problems arising out of the new bridge. The scheme shows a completely new idea and position for Waterloo Bridge. The proposed new bridge is planned on the central axial line of Somerset House, flanked by the existing roadway of Lancaster-place and another roadway by the widening of Surrey-lane to 80 ft. It is claimed to have the following advantages :

(*a*) It divides the bridge traffic into one-way traffic dispersal on either side of Somerset House, and effects a virtual "circus" for the traffic, and further removing the traffic jam at the junction of Lancaster-place and the Strand, which would greatly increase with a wider traffic bridge.

The total width across, including the present terrace of Somerset House to the river, would be 200 ft. Some criticisms have been made regarding the covering over of the Embankment for the new "Place," but this would not be of any detriment to Somerset House, as the scheme provides for an area of 20 ft. wide and 500 ft. long, practically the whole length, which enables the footways and basement level windows to be well and directly lighted. The pierced arcading would, with the addition of the reflective light off the river, give ample light. The arcading could be enclosed in glass to make a public shelter. At night time or during foggy weather, a series of strip lighting will give all the light necessary. From a comparative point of view, the covered space of the Embankment under Hungerford Bridge is approximately 300 ft. by 180 ft. at the widest end, whereas the suggested "place" would be approximately 600 ft. by 120 ft., and, compared on a superficial area, only slightly one-third more.

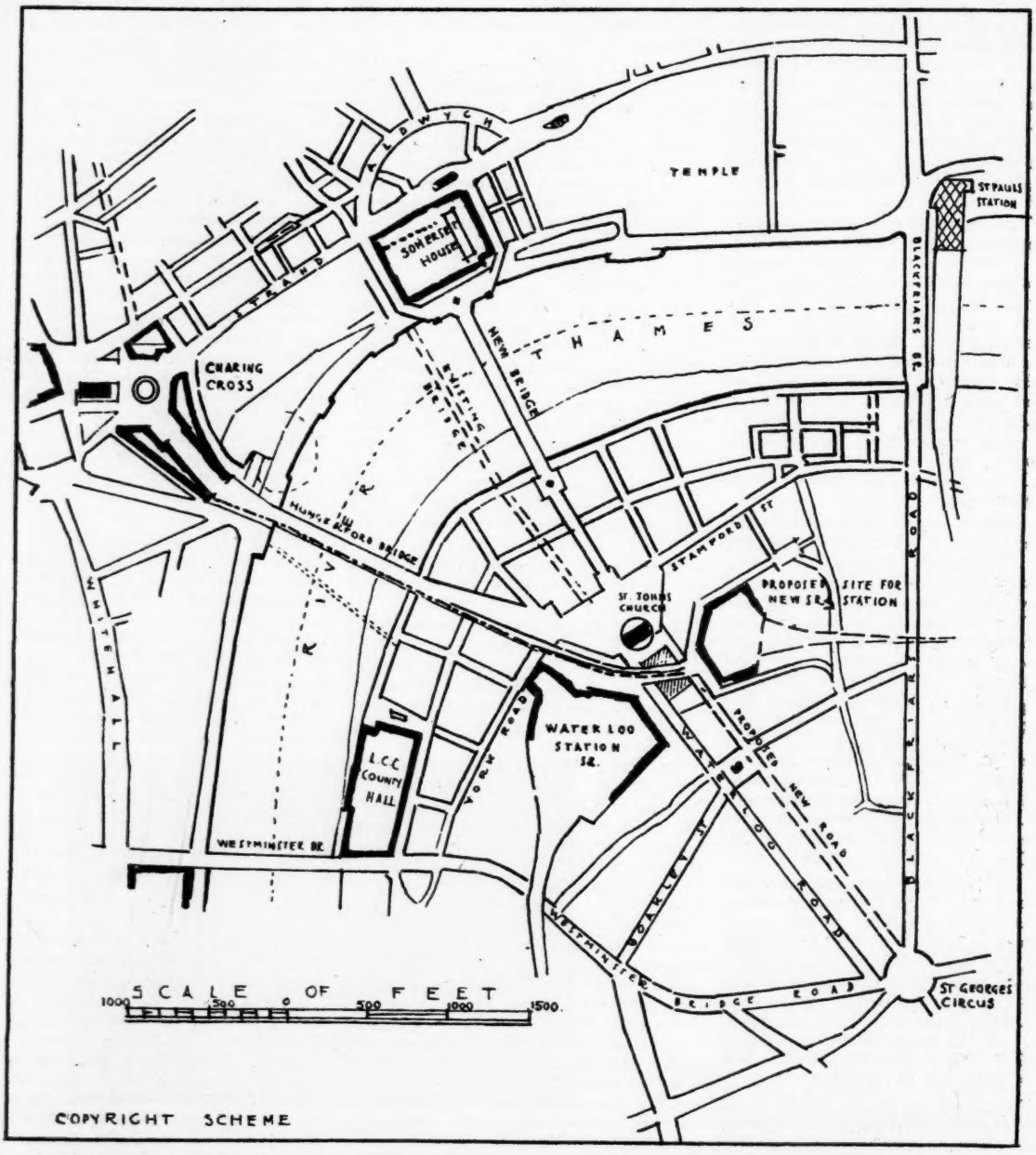
(*b*) The traffic would pass over a large elevated "place," 120 ft. wide by 600 ft. long, at a level which would restore a proper architectural base to Somerset House (which is now formed partially by Lancaster-place), and give an effective and centralised setting to Somerset House.

(*c*) It would afford an opportunity for enlarging Somerset House if desired, but this, of course, is not an essential part of the scheme.

(*d*) It would afford an opportunity for an enlargement of and fine architectural façade to King's College, facing on to Surrey-lane.

The new bridge position, it is claimed, has the following advantages :—

(*e*) It would make it possible to continue traffic over the present Waterloo Bridge and



PROPOSED SCHEME FOR A NEW WATERLOO BRIDGE AND CHARING CROSS NEW ROAD BRIDGE.

BY MR. JOHN B. MENDHAM, A.R.I.B.A.

temporary bridge until completion of the new bridge.

(*f*) It would obviate and save the cost of £250,000 for an additional temporary steel bridge, with all its inconvenience, to carry the traffic while the present bridge is being repaired or demolished to make room for a new bridge over the same site.

(*g*) It would enable the piers to be sunk in the river bed into new ground without any difficulty, which would occur working in close proximity to the old piers of the present bridge, and at a cost which cannot be accurately determined.

(*h*) It would enable the new bridge to be built much more quickly and at a far more economical cost, in consequence of a clear field, than building over an old site, where foundations of the river bed have proved to be defective.

(*i*) It would facilitate the problems of river traffic during construction by the absence of a second temporary bridge, with its piers and disturbance of the river generally, with shorings up to protect the piers.

(*j*) It would not interfere in any way with the entrance to the tramway tunnel to Holborn from the Embankment during construction, or subsequently, as it remains untouched.

The elevated "place" would be constructed with a large area, 20 ft. wide, running parallel to Somerset House, to assist light to the pavement below. The river side of the Embankment would have an open arcade. Two pylon towers would mark the bridgehead of Somerset House, and contain stairs to the Embankment, public lavatories, and also landing stages for river buses. A subway for the public would cross under the abutment of the bridge.

The new bridge would be 100 ft. wide, to carry six lines of traffic directed to the Strand. The length of the bridge between abutment would be 1,015 ft. It would be a five-arch bridge, each arch having a span of 186 ft., and with 27 ft. clear headway above Trinity high-water mark, with cutwaters 21 ft. 6 in. wide by 130 ft. long. The bridge would be constructed of reinforced concrete and stone facings in Portland stone. The arch spans are placed in positions relative to the deep-water channels, and would allow effective passing of river traffic. The design is in keeping with Somerset House, and in co-relation to the modern buildings nearby.

The bridgehead on the Surrey side is arranged with a bridge spanning the new 100 ft. wide St. George's Embankment, and a rotunda marking its termination. The new roadway is carried on, 100 ft. wide, to a proposed new St. John's-place, or traffic centre.

The rotunda at the bridgehead is planned to provide around it at the new Embankment level shops or cafés with open shelters, or cafés having a vista up the public gardens. the rotunda is also planned to allow for a future Underground Railway station.

Public gardens, 150 ft. wide, flank the Embankment bridgehead and run parallel to the new embankment, laid out in Swedish fashion with concrete or artificial stone walks, which would allow for displays of a variety of flowers. A double row of trees set in a grass margin completes the lay-out.

The scheme also provides for the conversion of the present Charing Cross railway bridge into a new road bridge, and for replanning and redevelopment in the neighbourhood of Charing Cross Station and on the south side of the river.

The following extracts from a memorandum issued recently on Reasons for Retaining the present Waterloo Bridge, by the Society for the Protection of Ancient Buildings and the London Society, are of interest in relation to this scheme. It points out in paragraph (1) that the existing Waterloo Bridge is not an historical monument but a bridge commenced to be erected by a private company during the Napoleonic Wars in 1811, and the opportunity was taken in 1816 to name it after the Battle of Waterloo; in paragraph (3) it is stated that the Port of London Authority, in 1924, objected to the widening of the present bridge, with its many arches, on grounds of navigation.

In paragraph (5) of the memorandum reference is made to Sir Henry Maybury, who, in giving evidence before the Parliamentary Committee, in 1926, said: "If you build Waterloo Bridge and make it a six-line bridge you have done nothing to relieve the traffic in the Strand at all, and it will have the effect of bunching up at Wellington-street crossing more than we have to-day. Widen Waterloo Bridge if you like, but that will not solve the traffic difficulties."

It is also contended in the memorandum that vehicular traffic has increased little over Waterloo Bridge in recent years, but that traffic on Westminster and Blackfriars Bridges had greatly increased; but against this contention can be put forward the fact that traffic has of recent years been diverted owing to the difficulties of access and egress from the Strand, but if the scheme illustrated were carried out it would solve this difficulty, and relieve congestion on the other bridges, and maintain an orderly organised traffic stream.

Paragraph (15) of the same memorandum states: "The construction of a new bridge (on the present site) would mean the closing of all road traffic over the river at this point for a period of six years, as before the building of a new bridge could be started, two years or more would be required to remove the present bridge. Not only would road traffic cease for a period of about six years, but traffic would of necessity be seriously interfered with for a lengthy period." The scheme illustrated, says the author, entirely disposes of this difficulty.

In paragraph (17) it is stated that at least £660,000 would be needed to repair the present bridge, which, if effected, would still not meet the traffic problem, at present or in the future, and cease and disorganise all traffic during reconditioning, quite apart from being a waste of public money, without having gained any appreciable advantages. The proposed new bridge scheme could, by good organisation and modern methods, be completed in three years, while still retaining the existing bridge for traffic during construction, and at a cost of approximately £1,250,000. It would provide a dignified and useful asset, from the point of view of road traffic, river traffic, economy, and would be an added architectural attraction to the river.

The stonework of the present Waterloo Bridge could be barged across the river, and used for the construction of the proposed new St. George's Embankment.

Alternative Scheme for New Charing Cross-road Bridge.

Plan No. 2 (page 888) provides for (*a*) retaining the Charing Cross Railway Station in its present position, reconstructed for modern requirements, and to work in with the proposed new traffic "centre," and (*b*) the retention of the present Hungerford Railway Bridge, and widening it each side to a total width of approximately 200 ft. from its present width of 100 ft., running parallel to and at the same level as the railway; the existing main Warren girders being utilised. (*c*) This scheme would meet any objections from the Southern Railway Co., and provide an efficient outlet across the river going up into the proposed new St. John's-square.

(*k*) The cost of carrying out this scheme would be economical and would not interfere much with the railway traffic during its construction.

(*l*) There are no structural difficulties presentable against the carrying out of this work, and it could be done expeditiously.

(*m*) The river traffic would be much less impeded than in the case of the former proposals to construct only a road bridge.

(*n*) If an entirely new bridge is required, this could be effected to carry both the road and rail parallel at the same level, with a bridge of three spans each of approximately 325-350 ft., constructed on the bow-arched principle in reinforced concrete, as shown on plan No. 3 (page 888).

There does not appear to be any legitimate reason for the entire removal of the present Hungerford Bridge on æsthetic or constructive grounds; on the other hand, it is the uses for which it is required and its economy in cost which must have first place in consideration, as the existing bridge could be effectively treated from an architectural point of view.

(*o*) New Charing Cross Station.—The present station occupies a covered area of approximately 170 ft. wide by 580 ft. deep, or 98,600 ft. super. The new station would have an area of 200 ft. wide by 500 ft. long, or 100,000 super. In each case, forecourts have not been included. Allowance has been made for platforms to be at least 600 ft. long. The parcels offices and car parks could be constructed underneath, and shops provided in the new Villiers-street.

(*p*) The cost of carrying out the conversion of Hungerford Bridge by the widening for both railway and a roadway would be far more economical than providing for a scheme to remove the Charing Cross Station to the south side of the river, with an entirely new roadway.

R.I.B.A.

At a Council meeting of the R.I.B.A. held on Monday, May 14, the following members were elected:—

AS FELLOWS.

A. H. Ley (London).
A. Mather (London).
C. M. O. Scott (London).
J. G. West, O.B.E. (Esher, Surrey).
J. C. A. T eather (Sheffield

AS ASSOCIATES.

J. H. Alleyn, B. Arch. (L'pool Sch. of Arch.) (Shiplake, Oxon.).
A. O. Ashton (Sydney, Australia).
H. S. Davison (Sch. of Arch., Leeds Coll. of Art) (Heckmondwike, Yorks).
J. C. Edgar (L'pool. Sch. of Arch.) (London).
V. Harding (A. A.) (London)
J. A. Pinckheard (A. A.) (London).
M. H. Rylance (Brisbane).
A. W. Soden (Birmingham).
H. B. Van der Riet (Durban).

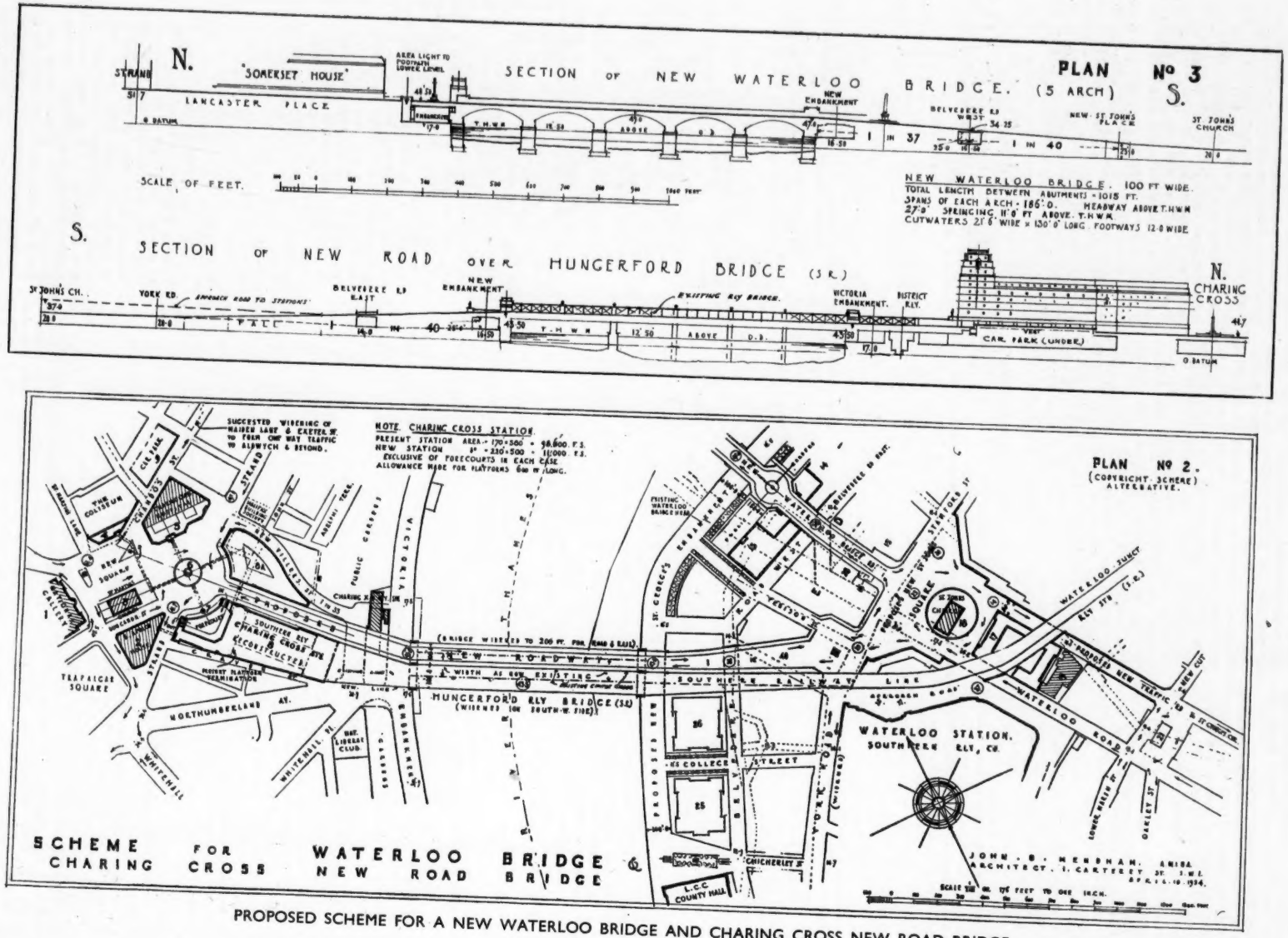
AS LICENTIATES.

G. P. Banyard (Cambridge).
A. J. Biddulph (Birmingham).
R. S. Cave (Oxford).
P. V. Davison (Barnoldswick, Yorks).
F. O. Eaton (Port Elizabeth, South Africa).
W. A. Ford (London).
H. M. Hedges (London).
M. P. Holmberg (Singapore).
J. E. Hopcraft (Birmingham).
J. S. Johnston (Leith).
E. L. G. Scriven (Hereford.)
H. Seabright (London).
J. A. Weatherley (Newburn-on-Tyne).

MAINTENANCE SCHOLARSHIPS.

The Royal Institute of British Architects offer for award in July, 1934, the following Maintenance Scholarships in Architecture, tenable from October 1, 1934:—A.—An R.I.B.A. Maintenance Scholarship of a maximum value of £100 per annum. B.—The Artists' General Benevolent Institution Maintenance Scholarship of a maximum value of £100 per annum. C.—An R.I.B.A. Fourth and Fifth Year Maintenance Scholarship of a maximum value of £100 per annum. The R.I.B.A. Maintenance Scholarship and the Artists' General Benevolent Institution Maintenance Scholarship are tenable in the first instance for one year, and renewable for two further periods of one year each. They are intended to enable promising students, whose parents or guardians have not the necessary means, to attend approved courses at the schools of architecture recognised for exemption from the R.I.B.A. examinations. Students who are already taking such a course are also eligible to apply for a scholarship. These two scholarships are available for students residing in England and Wales. The Artists' General Benevolent Institution Maintenance Scholarship is open only to orphans or sons or daughters of an architect or artist.

The R.I.B.A. Fourth and Fifth Year Maintenance Scholarship is tenable for two years in the fourth and fifth year courses at a school of architecture recognised for exemption from the R.I.B.A. final examination by a student who has already completed satisfactorily a three years' course in a recognised school. Applicants must be nominated by the headmasters of the recognised schools, and must not make application direct to the Board of Architectural Education. Particulars may be obtained from the Secretary to the Board of Architectural Education, R.I.B.A., 9, Conduit-street, London, W.1. The closing date for the receipt of applications is June 15.



PROPOSED SCHEME FOR A NEW WATERLOO BRIDGE AND CHARING CROSS NEW ROAD BRIDGE.

BY MR. JOHN B. MENDHAM, A.R.I.B.A.

THE TECHNIQUE OF ARCHITECTURE

A PAPER by Professor Walter Gropius, dealing with "The formal and technical problems of modern architecture and planning," was read before the Design and Industries Association on May 16.

We were to-day, the paper began, in a position to prove conclusively that the outward forms of modern architecture were not the whim of a few architects hungry for innovation, but the inevitable consequential product of the intellectual, social and technical conditions of our age. It had taken a quarter of a century of earnest and pregnant struggle to bring those forms into being—forms which evinced so many fundamental structural changes when compared with those of the past. The present situation could be summed up as follows: a breach has been made with the past which enables us to envisage a new aspect of architecture corresponding to the technical civilisation of the age we live in; the morphology of dead styles has been destroyed; and we are returning to honesty of thought and feeling; the general public, which was formerly indifferent to everything to do with building, has been shaken out of its torpor; personal interest in architecture as something that concerns every one of us in our daily lives has been aroused in wide circles; and the lines of future development have become clearly manifest throughout Europe.

The Dangers of Fashion.

But that development had encountered obstacles: confusing theories, dogmas, and personal manifestos; technical difficulties which the world's general economic decline since the War had accentuated; and finally, the dangers arising from formalistic will-o'-the-wisps. The worst of all of those was that "modern" architecture became fashionable in several countries. Imitation, snobbery and mediocrity had distorted the fundamentals of truth and simplicity on which the Renaissance was based. That was why the movement must be purged in the ranks of its own adherents if its original aims were to be rescued from the strait jacket of materialism and those false slogans which were the result of imitation and misconception. Spurious phrases like "functionalism" and "fitness for purpose-beauty" had deflected appreciation of the new architecture into minor and purely external channels. That one-sided characterisation was reflected in that frequent ignorance of the true motives of its founders, and a fatal obsession which impelled superficial people to try to relegate this phenomenon to one isolated province instead of perceiving that it was a bridge which united opposite poles of thought. The liberation of architecture from the mass of ornament, the emphasis on the functions of its structural members, and the quest of concise and economical solutions, only represented the material side of that formalising process on which the practical value of the new architecture depended. What was far more important than that structural economy and its functional emphasis was the intellectual achievement which had made possible a new spatial vision—for whereas the practical side of building was a matter of construction and materials, the very nature of architecture, made it dependent on the mastery of space. The transformation from manual to machine production so preoccupied humanity for a century that, instead of pressing forward to tackle the real problems of design, men were long content with borrowed styles and formalistic decorations. That state of affairs was over at last. A new conception of building, based on realities, had developed; and with it had come a new changed perception of space. The very different appearance of the numerous good examples of the new architecture which already existed exemplified those changes, and the new technical means we now employ as a result of them.

Mass Production and Standardisation.

The paper then gave some description of the founding and ideals of the *Bauhaus*, or School of Design, which Professor Gropius founded after the War at Dessau. The greatest opposition which the new architecture encountered was due to the demand of modern architects that the principle of mass production should be applied to house construction. But the main obstacle to its more rapid generalisation was the opposition of big commercial interests. The danger of "monotonisation" of form could be overcome the moment it was possible to manufacture in series, not whole houses, but only their component parts; since from the latter different types of houses could be assembled to correspond to the needs of individual requirements. The goal to be aimed at was, therefore, a "box of bricks" for adults. The second objection, that mass production of dwellings would cause the destruction of handicrafts, could be countered by the pertinent example of the Japanese, who for centuries had been making completely standardised houses of the highest quality carried out entirely by manual labour. But in European countries the necessary transformation of the building trade implied such a complicated and protracted process, and the responsibility towards that highly specialised and ramified key industry was so great that another generation must go by before the production of houses by machinery became an accomplished fact and was regarded as a matter of course. The difficulties in the way were all the more considerable for being of a psychological as well as a technical nature. We had been accustomed to refer to "standard" things for a long time, but, generally speaking, we applied that term much too superficially. The perfection of a standard product that would last and long maintain itself as such entailed the most intensive preparatory work. It was only after the theoretical and practical basis of a product had been thoroughly thought out to the last detail, and in terms of the widest possible future anticipation of its use, that a product became a "standard" one, since "*le mieux c'est l'ennemi du bien.*"

The New Constructional Technique.

One of the outstanding achievements of the new constructional technique had been to abolish the separating function of the wall: that was to say, instead of building walls as supporting members, as in a brick-built house, it had transferred the whole load of the structure to a steel or concrete framework and economised weight and bulk in the supporting elements by the use of reliable materials such as those just mentioned; and restricted the rôle of the walls between those members to mere weather and sound screens for keeping out the rain, heat, cold and noise. With the object of saving the maximum of weight and bulk, this non-supporting and merely partitioning walling was made of light weight concrete, breeze, or other reliable materials in the form of thin slabs or blocks. This space-saving construction in steel or concrete—the object of which was to achieve a progressive reduction of the area occupied by the supporting members by means of the nicest calculations and intensification of the rigidity of the materials used—had naturally led up to an ever bolder and wider opening up of the wall areas which allows much better lighting. The old type of window, a hole that had to be hollowed out of the full thickness of a supporting wall, was being logically displaced by the continuous horizontal window, divided by thin steel mullions, which had become characteristic of the modern house. And as a result of the increasing preponderance of voids glass had assumed an even greater structural importance. Its light, unsubstantial and, as it were, floating appearance enlivened the aspect of our modern homes.

In the same way the flat roof had superseded the old tiled or slated gable roof. Its advantages were obvious: light, rectangular top-floor rooms instead of dark and almost useless angular attics; avoidance of timber roofing, which was so often the cause of fires; practical utilisation of the flat area thus provided (children's playgrounds, private open-air gymnasiums); better provision for adding to the building, whether by wings or extra stories; no unnecessary surfaces presented to the force of the wind; avoidance of such protrusions as rain-pipes and gutters made of perishable zinc. The development of airways confronted the architect with the task of designing houses from the bird's-eye point of view as well as ordinary perspective. The utilisation of flat roofs as gardens was an efficacious means of introducing nature into the stony grey wastes of our great cities. The cities of the future, with their green leafy roofs, would have the appearance of vast gardens when seen from the air, what was lost to nature at ground level being regained up aloft. But the outstanding advantage of the flat roof was that it made possible a much more free type of planning.

Town Planning Problems.

Opinion was still very widely divided as to what was the ideal form of dwelling for the bulk of the population: separate houses with their own gardens, tenement blocks of medium height (two to five floors), or eight to fifteen storied buildings. The bitterness of the controversy was a direct reflection of the limited extent to which that clamourous longing for town or country, as the case might be, had hitherto been satisfied. The decisive factor in the choice of a dwelling for the townsman was maximum utility. The nature of that utility depended on his tastes, his profession, and his income. It was indisputable that to most people the separate house seemed the most tempting haven in which to take refuge from the stony ocean of a great city. The direct communication with the garden, the greater seclusion, and the delicious sense of complete possession were obvious advantages which everyone could realise. All the same, the tenement block was a type of housing which was a truer embodiment of the needs of our age, but one which could only be regarded as a necessary evil, and must on no account be suffered to remain in its present primitive stage of development. The drawbacks of existing examples must not prevent us from approaching the problem from a fresh angle.

When conscientiously planned with broad stretches of verdure between them, sky-scraper collective dwellings satisfied all requirements in regard to light, air, tranquillity and rapid egress; besides offering their inhabitants innumerable other advantages. In 10-12 storied tenements of that kind ground-floor tenants were assured of a clear view of the sky; instead of looking on to blank walls, or into narrow wells or corridors, they had an uninterrupted view over expanses of grass and trees, a hundred yards in breadth, which provided playgrounds for the children.

To sum up: Good architecture depended on the systematic solution of the great problems of national planning: on the interpenetration of town and country by loosening the warp and weft of the stuff of our cities; on the linking up of industry and agriculture; on co-ordinated concentration and redistribution of population on geo-political and economic principles; on the organic concatenation of the centres of work, instruction and habitation; and finally on the solution of the problem of the ideal type of dwelling. The intellectual groundwork—or, as one might say, the laboratory tests—of the elements of a new architecture had already been accomplished and made available. The task of the coming generation was to transplant that knowledge in the consciousness of the community. Though some would continue to feel sympathy and others antipathy for the movement that was called the new architecture, no one could any longer ignore its intellectual basis—an essentially vital basis, whose scope so far transcended considerations, one might almost say details, like fitness for purpose or functional truth. Its spiritual necessity, its power of persuasion could no longer be disputed; and the youth of to-day was inspired by it.

ILLUSTRATIONS

PLATES.

R.A. Exhibits.

We give this week some further illustrations of works exhibited in the Architectural Room at the Royal Academy. Some brief descriptions follow.

St. Joseph's Church, Weymouth.

This church, which was opened on April 18, is built of brick, pink-washed outside and wood-floated plaster finish inside. The roof is covered with Cornish slates, and the hood over entrance doors with copper. The inside of roof is painted pearl grey in colour. Seating accommodation is provided for about 400, and the cost is approximately £9,000 for church and presbytery. The builder was Mr. Lacey, of Hounslow.

Messrs. Leonard Stokes and Drysdale, F.R.I.B.A., are the architects.

Scarborough Hospital.

This hospital was the subject of an open competition held in 1932. It comprises surgical, medical, maternity, children's and paying patients' units, totalling 140 patients' beds, and in addition a comprehensive out-patients' and casualty department, laundry, nurses' home for 60 nurses, pathological laboratories and porter's lodges. The hospital has been planned in a centralised "U" block, with the wards projecting to the south, and terminating with large sun-balconies supported on steel columns to minimise obstruction to sunlight, and enclosed on the sides with sliding steel wind screens. The children's ward balcony will be fully enclosed and heated to form a solarium. On the north elevation is the main entrance, flanked by two-story projections dropping down to single-floor wings. The varying sizes of the units required have greatly determined the external modelling of the design, and advantage has been taken of this fact to obtain recessments, terraces and balconies at different levels. The construction of the walls and floors will be brick with 2 in. cavity, and faced with light-toned facing bricks and hollow-tile reinforced concrete, respectively, while low-pressure hot water heating will be used (having forced draught coal-fired boilers) in conjunction with gas or electric fires in wards and other rooms. The internal finishes will be of a fresh character, with enamelled plaster walls, terrazzo dadoes in corridors, linoleum and wood-block floors, and terrazzo floors in sanitary apartments. Windows are generally steel in wood frames, with a larger glass area in the wards than usual. The site is situated on the outskirts of the town. It is a good one, but a fall across part of it of 30 ft. necessitates the placing of the building on the upper levels, but adding to the effects of the composition.

The architect is Mr. Wallace Marchment, F.R.I.B.A.

Church of St. Matthew, Withernsea, Yorks.

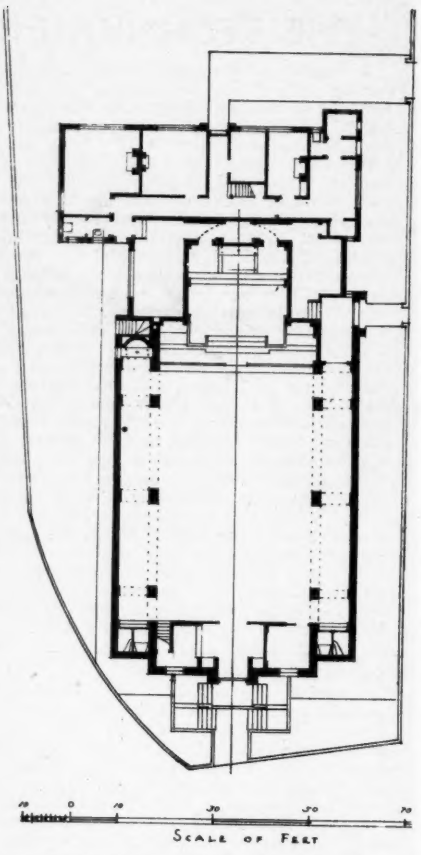
This is one of the churches to be erected out of the Archbishop of York's Appeal Fund for new churches in the Diocese of York, the design, by Messrs. Milner & Craze, being the result of a limited competition held last year. The design is based upon traditional lines, influenced to some extent by modern tendencies. Due consideration has, however, been given to the possibilities of brickwork in regard to the general massing and treatment of the internal and external walling. Externally, the building will be faced with hand-made bricks of rough texture obtained in York, and made in precisely the same manner as similar bricks, used in the locality of York, were manufactured in Tudor times. The roofs will be covered with plain red cambered tiles.

Internally the whole of the church will be faced with Midhurst white bricks, including all special bricks for arches, plinths and other features. The whole of the timber trusses and other members of which the roofs are composed will be visible, and the whole of the woodwork has been designed in accordance with the best examples of mediæval carpentry. The timbers comprising the various parts of the roofs will be of ample dimensions, and will thus form one of the features of the church. The internal and external oak doors will be formed of horizontal and vertical boarding in two thicknesses with large moulded cover fillets, the whole of the woodwork, including the wrot-iron hinges, being bolted together without the necessity of pinned or glued joints. The church will be heated by a low-pressure hot water installation and artificially lighted by electricity, the electrical fittings being specially designed for their purpose. The building contract has been placed with Mr. A. Hunter, of Withernsea. The completed church will cost about £9,500, exclusive of furnishings and fittings.

Building for the Company of Newspaper Makers.

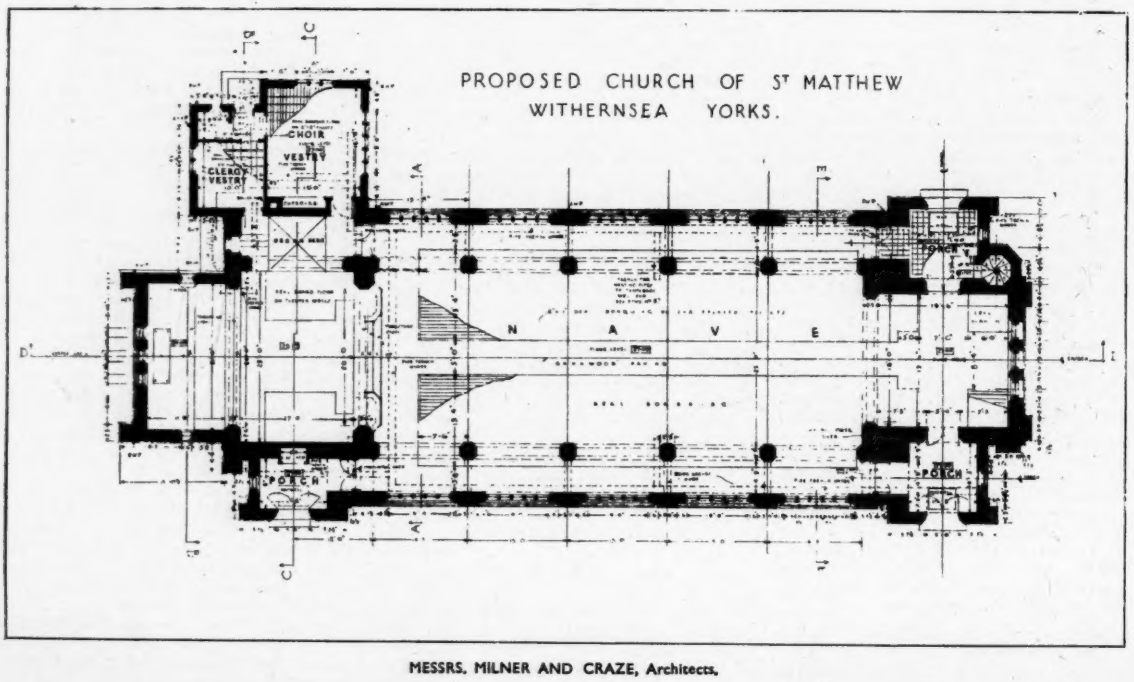
The design for the proposed hall for the Newspaper Makers' Company occupies a site of about 100 sq. ft. The centre block from back to front behind the tower rises to 100 ft. The tower itself is 277 ft. high from the pavement, and is surmounted by an illuminated globe with a representation of the map of the world, about 14 ft. in diameter. In this design the object has been to produce a striking building which would be a landmark for

(*Continued on page* 901.)

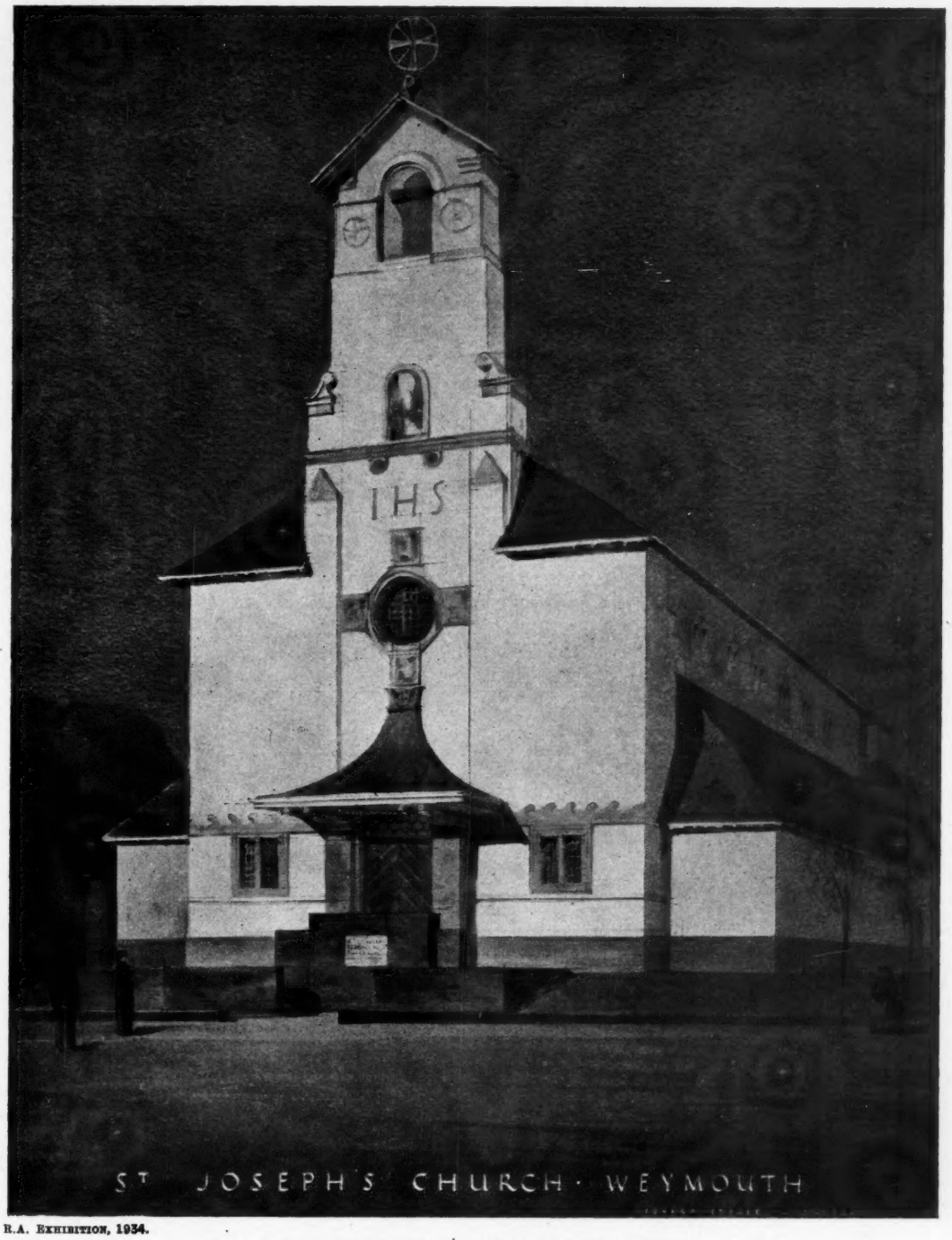


ST. JOSEPH'S CHURCH, WEYMOUTH: Ground Plan.

MESSRS. LEONARD STOKES AND DRYSDALE, F.R.I.B.A. Architects.



MESSRS. MILNER AND CRAZE, Architects.



R.A. Exhibition, 1934.

MESSRS. LEONARD STOKES AND DRYSDALE, F.R.I.B.A., Architects.

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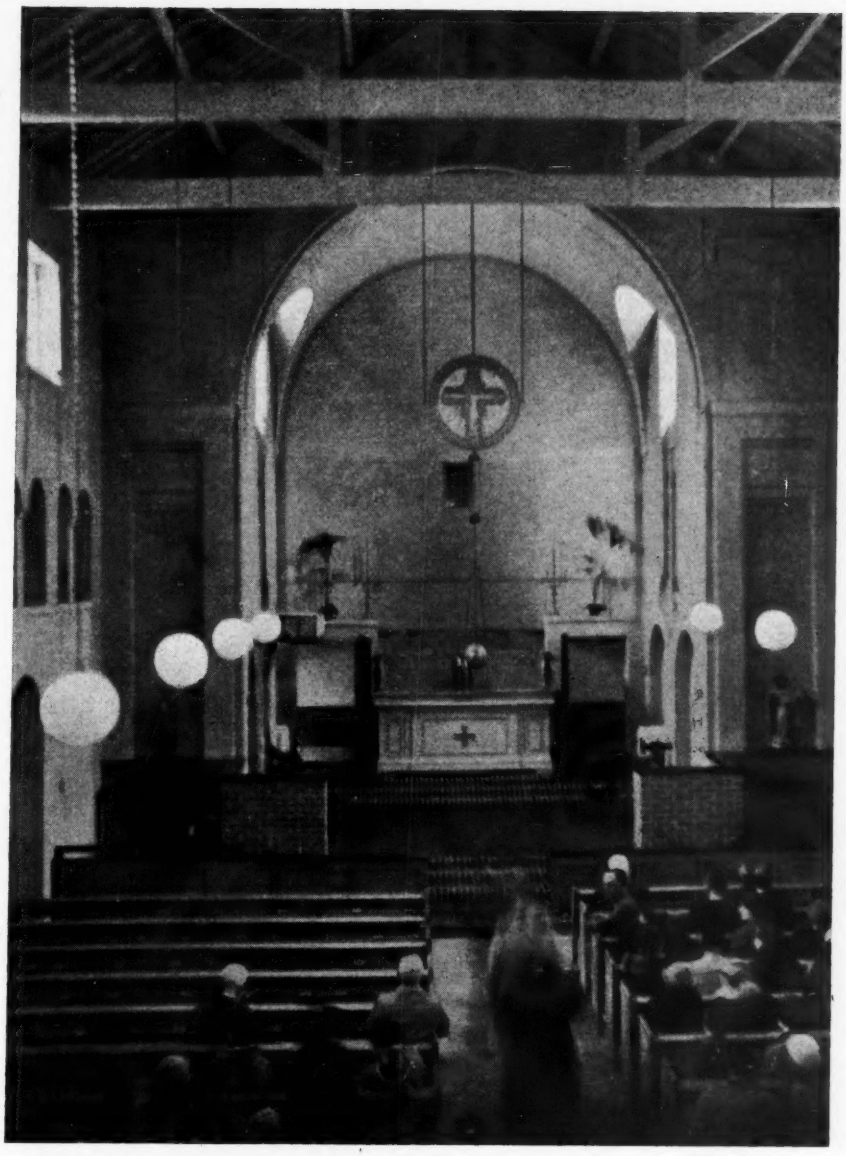

ST. JOSEPH'S CHURCH, WEYMOUTH : View looking towards Sanctuary.

MESSRS. LEONARD STOKES AND DRYSDALE, F.R.I.B.A., Architects.

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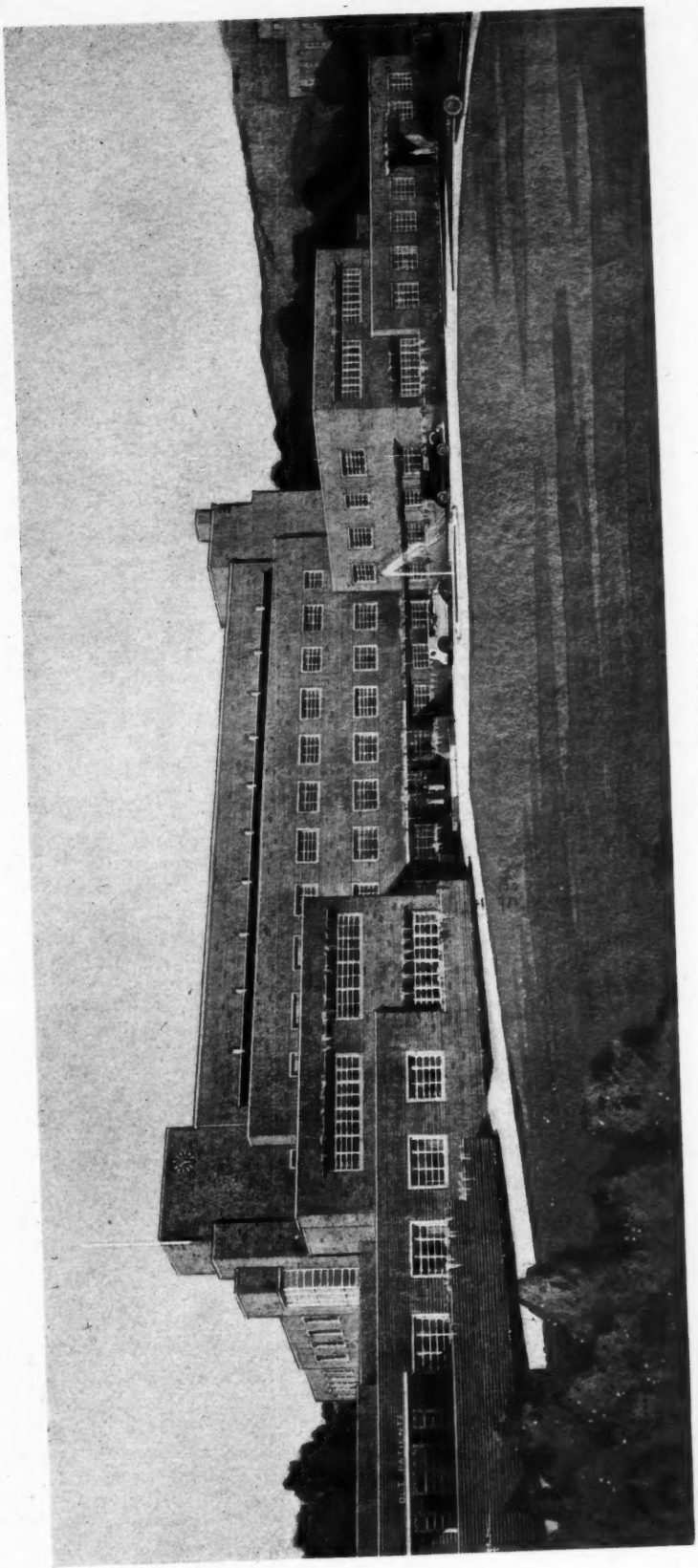

NEW HOSPITAL, SCARBOROUGH.

MR. WALLACE MARCHMENT, F.R.I.B.A., Architect.

R.A. Exhibition, 1934.

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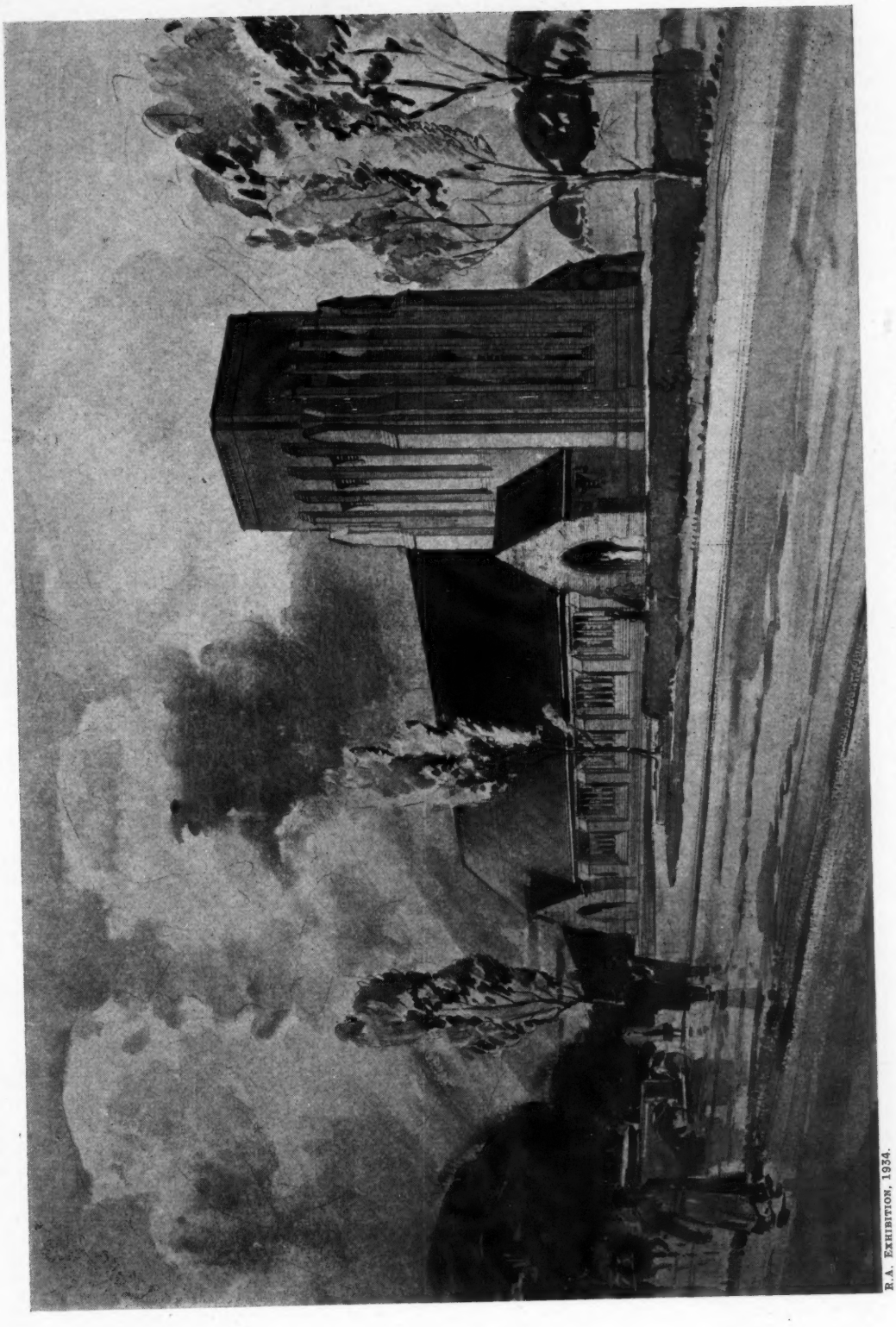

PROPOSED CHURCH OF ST. MATTHEW, WITHERNSEA, YORKS.

MESSRS. MILNER AND CRAZE, Architects.

R.A. EXHIBITION, 1934.

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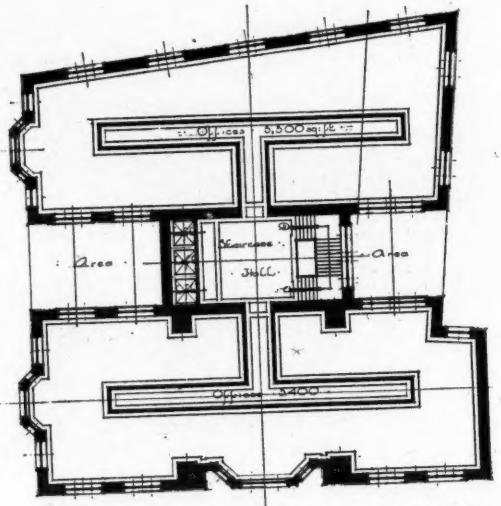
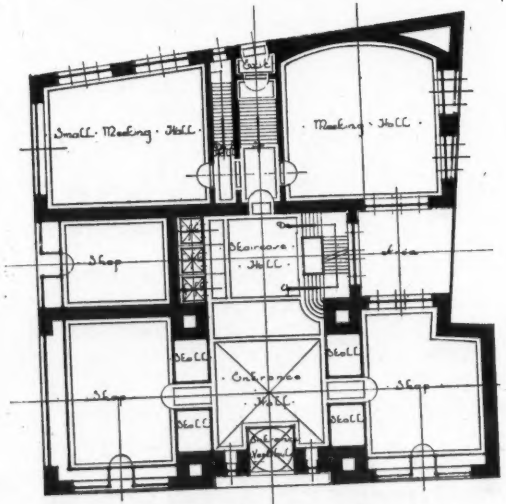
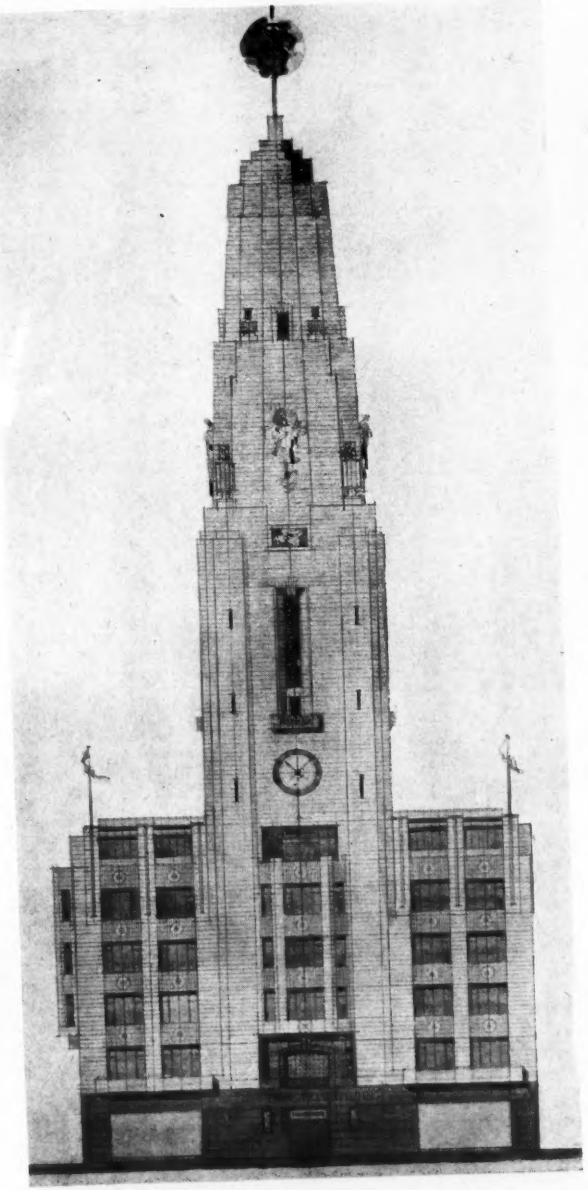


SECOND · THIRD · & · FOURTH · FLOOR PLANS ·



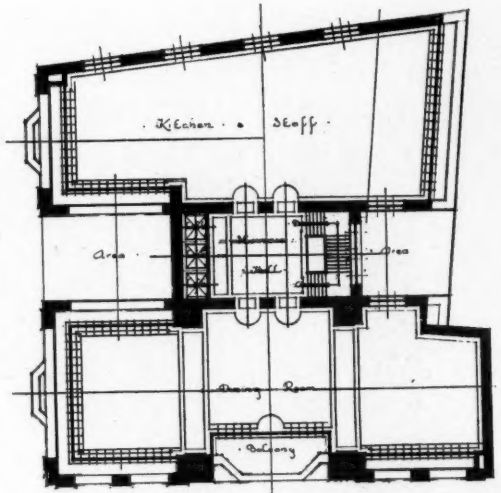
· GROUND · FLOOR · PLAN ·



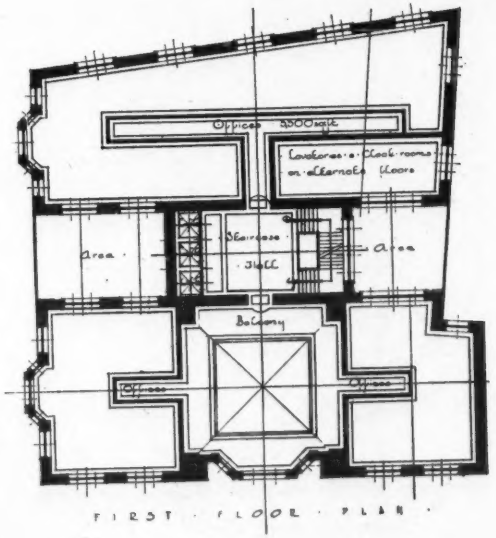
R.A. Exhibition, 1934.

DESIGN FOR NEW PREMISES FOR THE COMPANY OF NEWSPAPER MAKERS.

BY MR. J. J. JOASS, F.R.I.B.A.



FIFTH · FLOOR · PLAN ·

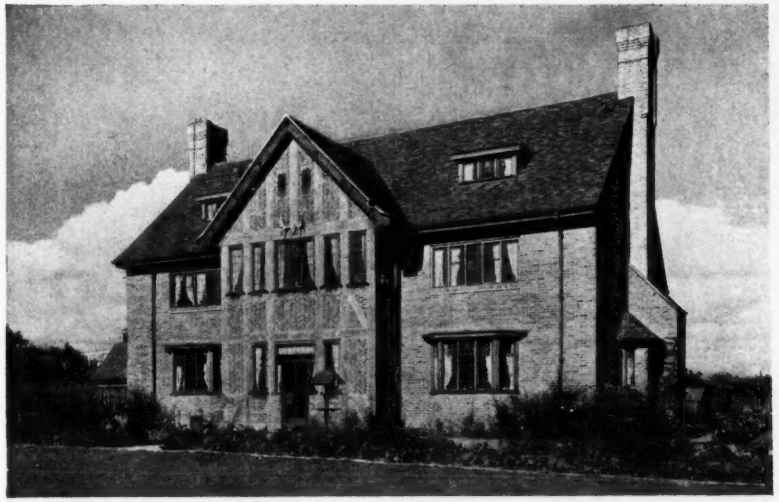


FIRST · FLOOR · PLAN ·

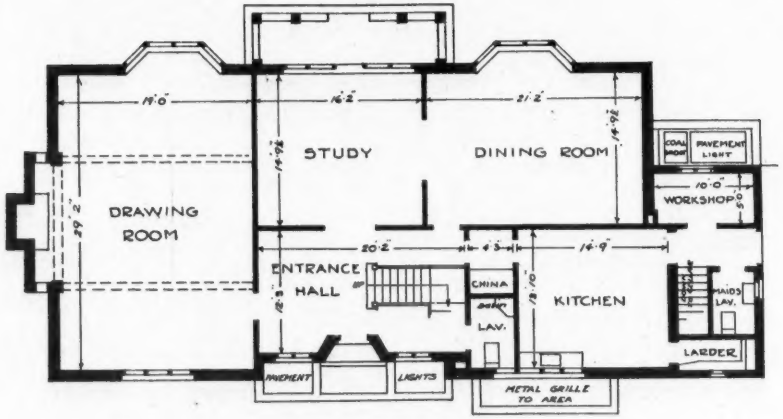
R.A. EXHIBITION, 1934.

MR. EDWARD J. WALTERS, L.R.I.B.A., Architect.

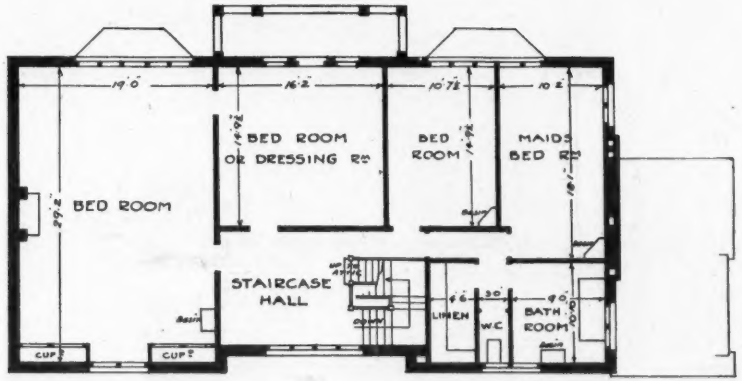
ENTRANCE FRONT.



FRONT TO SANDON ROAD.



GROUND FLOOR

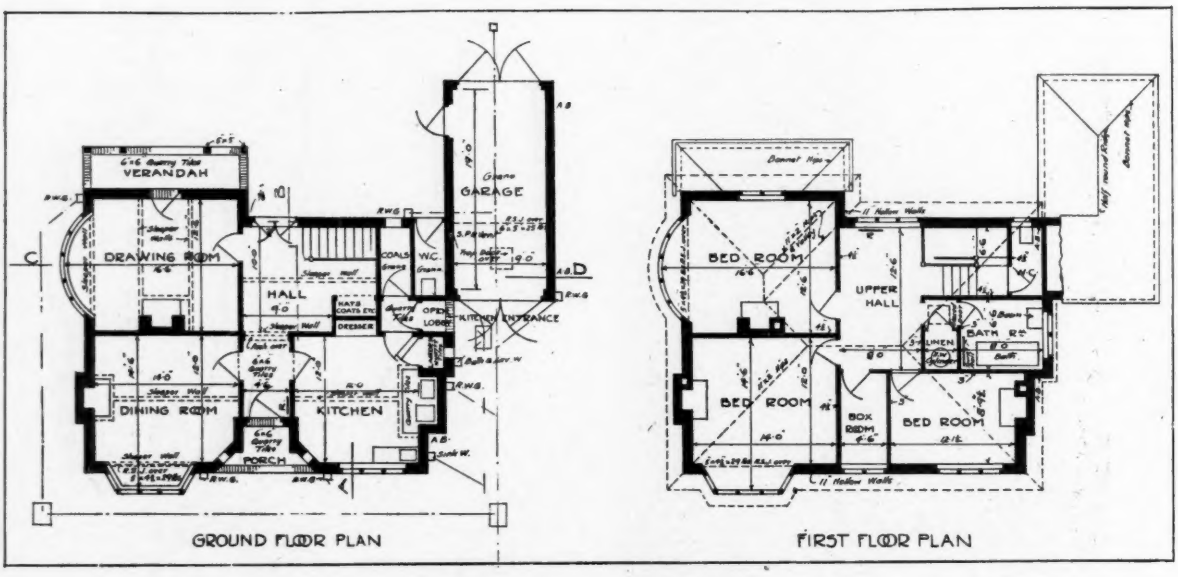


FIRST FLOOR

A HOUSE AT HAYES, MIDDLESEX.

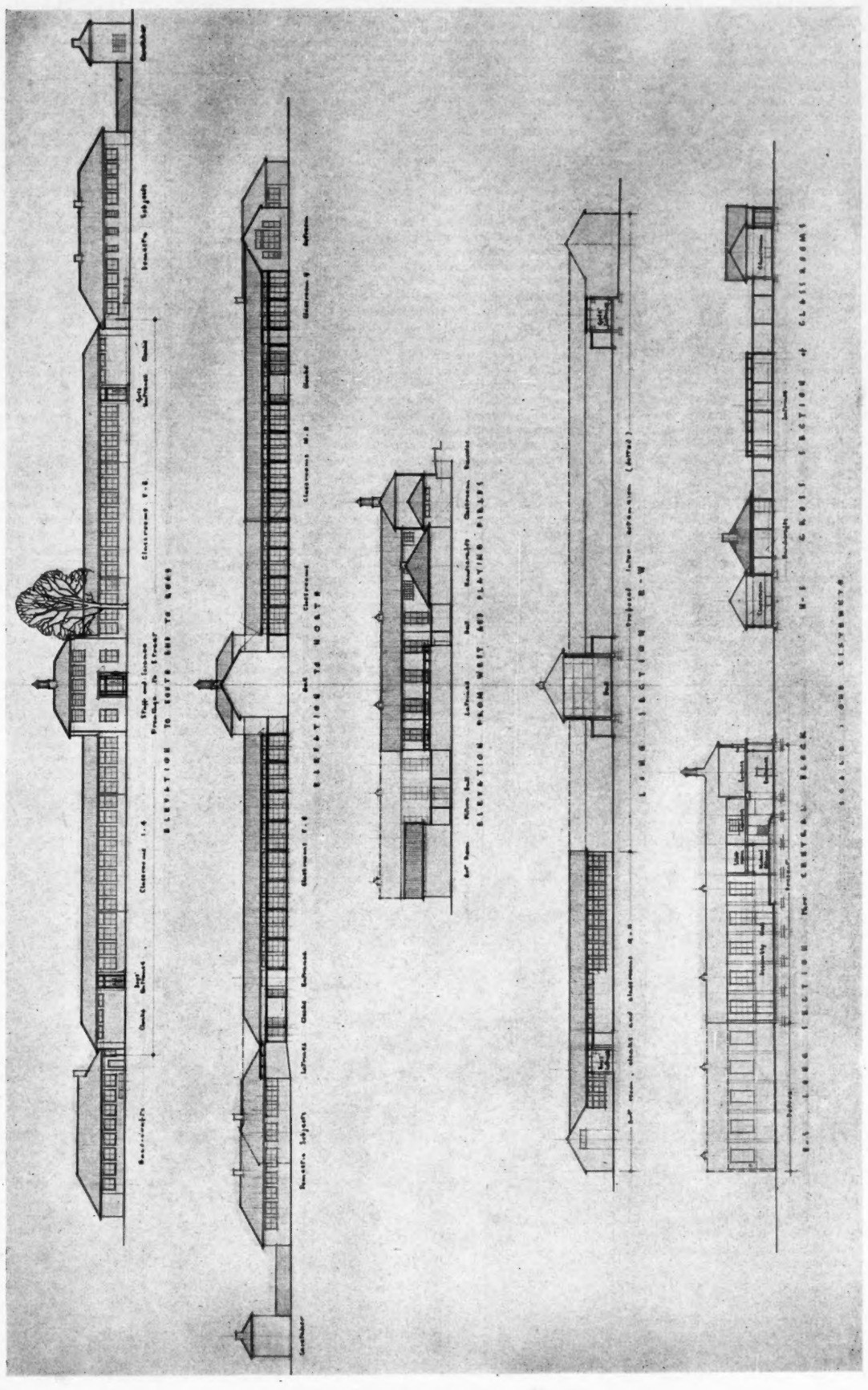
MESSRS. J. M. WILSON AND T. ELSON HARDY, L.R.I.B.A., Architects.

FRONT TO STATION ROAD.



A HOUSE AT HAYES, MIDDLESEX.

MESSRS. J. M. WILSON AND T. ELSON HARDY, L.R.I.B.A., Architects.



COMPETITION FOR NEW COUNCIL SCHOOL, HEN LANE ESTATE, COVENTRY : Winning Design.
BY MR. R. HELLBERG, A.R.I.B.A.

"THE BUILDER" DEBATE

LXXIV.—THE MODERN ROOF.

"That the roof of the future for domestic buildings will not be flat."

SIR,—"Positive" seems to have made up his mind that the flat roof is ugly, and the sloping roof pleasing; after which he has searched his mind for arguments with which to support his preferences. I suggest that this is not only a dangerous spirit in which to enter into debate, but a wrong attitude of mind for a designer to adopt. The form of a building is largely inevitable, and the designer must, within limits, accept the form and treat it and control it with taste and skill. He must not create the form and squeeze his architecture into it.

Now, I will go even further than this, and say that he who decides that the flat roof is ugly, or out of sympathy with the English landscape, is talking nonsense; since some of the most admired churches and country houses are designed with tops which are architecturally flat, whether or not the roof is actually flat. The lead roofs in some ecclesiastical districts are well known, and the parapet treatment of many town and country houses of the eighteenth century was deliberately contrived to put the sloping roof out of sight. It is never suggested that these buildings are blots upon the landscape or that their skylines were crude or box-like.

The actual flat roof has been rare until recent years, and the reason is not far to seek. Until comparatively recent times the flat roof had to be covered with sheets of metal, lead or copper, with innumerable joins in any considerable area. Now we have materials which will cover large areas without seams, and the risks and damages of leaky joints are removed. One would imagine that such a development would naturally create an increasing tendency to roof flat, but, by "Positive's" instructions, we are to ignore it altogether, because the modern horizontal line is ugly, in contradistinction to the eighteenth-century horizontal line which is, presumably, beautiful.

"Positive" throws cold water on the idea of a roof promenade, and suggests that the garden is an equal point of vantage. Can he explain why it is that the passengers always flock to the boat deck on a fine day, or why people pay a cheerful shilling to climb steps to towers and cupolas, etc.? Surely it is that there is some attraction in standing as high above the earth as possible. And the householder does indeed take pride in his own little watch tower, when his architect deigns to give him one.

On the score of expense, "Positive" has to make superhuman efforts to substantiate his case. He has, in fact, to take us into a house of his designing in which the bedroom walls do not exceed five feet in height above the floor. He probably would not allow any householder to prefer a square-sectioned room, nor would he admit that bedrooms are sometimes furnished with pieces exceeding five feet in height. He is also conveniently silent about the costly dormer windows, with their innumerable cuttings for all trades, and their leadwork, or bonnet work, without which the semi-attic is rarely possible. If he went into these things he would have to admit that by the time he has roofed his architectural eaves, sealed in the soffit and hung cast-iron gutters round to catch, or miss, the rain, there is no economy left in the sloping roof.

A great deal is made, also, of the insulating value of a sloping roof. Those who have poked their heads through the trap doors and felt the whistle of cold air which blows through a well-constructed roof will need some convincing that this manner of building offers efficient insulation. Surely there is more value in the narrow, stagnant spaces between the wooden joists of a flat roof. So far as pipes, tanks and conduits are concerned, these can always be catered for by the thoughtful planner, and they present no greater problem at the flat ceiling of a bedroom than at that of a ground-floor room.

It is quite unfair to accuse the modernist designer of seeking to make sensation. He is simply trying to carry things one step forward in his times, and he is doing so with courage and success, despite the "diehards" who will resist anything which their great-grandfathers did not have or practise.

NEGATIVE.

DESIGN OF HOUSES, RUISLIP

RESULT OF ARBITRATION.

WE published in our issue for May 4 a report of an appeal by Mr. Walter G. Taylor, a builder, of Harrow, against the decision of the Ruislip Council to reject plans for houses of ultra-modern character, proposed to be erected from the designs of Messrs. Connell and Ward. The appeal was heard by Mr. Ernest G. Allen, F.R.I.B.A., the arbitrator appointed by the President of the R.I.B.A.

The Council's complaint was based on æsthetic grounds, and a panel of architects appointed to guide the local authority on architectural matters described the design as "deliberately odd." At the hearing of the appeal a model of two of the houses was on view. (This we also illustrated.) Features of their design were a flat roof and a staircase enclosed in glass.

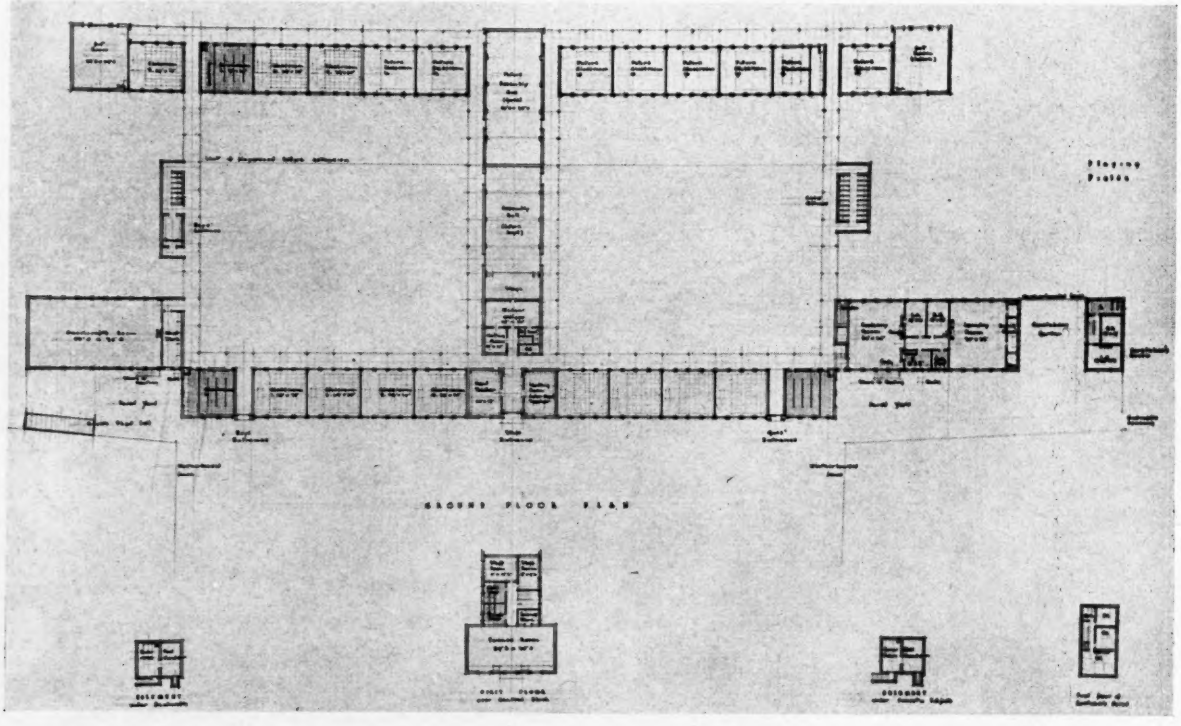
We understand that the appeal has not been allowed, the arbitrator expressing the opinion that the design of the houses is "injurious to the amenities of the neighbourhood."

The Ruislip Council, under the terms of the award, may within 28 days lay down what form the proposed houses shall take.

We are informed by Messrs. Connell and Ward that: "The actual position with regard to Ruislip is that Messrs. Walter Taylor (Builders), Ltd., are unable to disclose the terms of the award, as in their opinion it is still in the hands of the arbitrator."

Cost of Baths and Washhouses.

The Departmental Committee of the Ministry of Health on the Cost of Hospitals and Other Public Buildings has requested the R.I.B.A. to prepare evidence on the cost of baths and washhouses. A committee, of which Mr. Kenneth M. B. Cross, F.R.I.B.A., is convener, and on which Messrs. J. Murray Easton, Mr. C. Nicholas and Mr. A. G. Porri are to serve, has been formed.



COMPETITION FOR NEW COUNCIL SCHOOL, HEN LANE ESTATE, COVENTRY: Winning Design.

MR. R. HELLBERG, A.R.I.B.A., Architect.

SOCIETIES AND INSTITUTIONS

SCHOOL OF ARCHITECTURE, REGENT STREET POLYTECHNIC.

Lectures on Town Planning.

Mr. James Burford, A.R.I.B.A., A.M.T.P.I., who is delivering a series of eight lectures on Town Planning and Civic Design at the Regent-street Polytechnic School of Architecture, Regent-street, W., said in his opening lecture that town planning might be regarded as the application to a town or region of that process of ordered thought habitually applied to individual buildings, but the problems were much greater and more intricate. Some knowledge of the historical development of town planning, apart from technicalities, would give a critical standpoint. Evidence of town planning could be traced in remote times, but town planning in Europe might be dated from the late classical period—the Macedonian Age. Classical town planning achieved the simplest kind of order by "chess-board" planning. Boundary walls were frequently irregular as dictated by the site, but internal planning remained rectangular. There was little adaptation of the plan type to the site. Certain plots were allocated for important public buildings and the agora, but no definite architectural setting for these buildings was achieved. Classical town planning might be described as arithmetical—number rather than relation. Ideas of "vista" and "distance" were foreign to classical thought. Briefly tracing the Danubian and Etruscan influences on Roman planning, the lecturer described a number of Roman towns characterised by two main streets crossing at right-angles—perhaps the influence of Roman augurs. On this basis "chess-board" planning was almost universal in planned Roman towns. Turning to mediæval planning, the lecturer traced the rise of the "Bastide" and "New Town." He compared mediæval towns which were planned as complete units and those which were by gradual growth. The former adhered to rectangular chequer planning, the latter grew in rings from a nucleus. He emphasised the difference between growth and extension, and pointed out that whereas classical cities had only one centre, the agora, mediæval cities always had two, the church square and the market square. The two elements—Church and State—were thus in opposition, characteristic of mediæval thought and reflected in mediæval town plans. This element was further stressed by the growth of the antithesis between the town and the countryside. The lecturer suggested that the sense of mystery inherent in mediæval plans developed later into the magnificent vistas of the Baroque.

In the second lecture of the course, Mr. Burford surveyed and discussed the town planning of the Renaissance. This, he said, was characterised by great formality and the development of axial design and the focal point. Towns reflected in their unity of design, domination by a single authority as distinct from the expression of the interaction of Church and State inherent in mediæval town plans. Renaissance designers conceived town plans within set limits, but made no provision for growth. They failed to grasp the idea of a town plan as a living organisation for controlling and guiding development. Much of Renaissance planning looked well on paper, but could scarcely be appreciated in actuality. The lecturer pointed out that in this respect the æsthetic appreciation of a realised town plan was analogous to the appreciation of a room, which is viewed from the inside, rather than to the appreciation of a building, viewed from the outside. Renaissance designers—Scamozzi, for example—produced many plans for ideal towns. Some of these plans were realised, as at Neubreisach and Freudenstadt. Axial planning, with full development of conceptions of distance, vista and perspective (expressed in different terms in mediæval planning and absent from the conception inherent in classical planning) reached its culmination in such notable examples as Versailles and the Champs Elysées, whilst there were many examples on a smaller scale, e.g., Nancy, Ludwigslust. The lecturer showed a number of Baroque plans in the grand manner and referred to de l'Enfant's plan for Washington as a notable example of large-scale axial planning. He illustrated several examples of formal eighteenth century town plans in Britain and discussed the plans by Craig and Playfair for the New Town of Edinburgh. Playfair's work, in the first years of the nineteenth century, showed some influence of the Romantic school and a decline in quality of design when compared with the work of Baroque planners. Summarising his remarks, the lecturer said that a lesson could be learnt from two aspects of Renaissance planning—one positive, the other negative. On the one hand, the masterly geometrical and axial planning of the Baroque designers and their skilful handling of irregular intersections of axes had never been equalled. On the other hand, Renaissance planners failed to grasp the significance of a town plan as a dynamic organisation going beyond the control of immediate requirements to the regulation and guidance of future growth.

BERKS, BUCKS AND OXON ARCHITECTURAL ASSOCIATION.

Annual Meeting.

The annual general meeting of this Association was held on May 12, at Maidenhead, a goodly number of the members with their wives and friends first meeting for lunch at the "Crown" Hotel. At the annual meeting the President (Mr. Stanley Hamp, F.R.I.B.A.) delivered an address, in which he stressed the important part played by the Allied Societies in the efficient organisation of the profession throughout the country, and urged the council of the Association and the executives of the branch societies to proceed with a definite programme of work, in which every individual member of the Association could be called upon to take an active part in one or more of the many ways in which architects are specially qualified to assist the community in which they live.

The retiring officers of the Association were re-elected as follows, on the proposition of Mr. E. Steward Smith :—President, Mr. Stanley Hamp, F.R.I.B.A.; Hon. Treasurer, Mr. T. Talfourd Cumming, F.R.I.B.A.; Hon. Secretary, Mr. E. A. L. Martyn, A.R.I.B.A.; Hon. Auditor, Mr. C. B. Willcocks, F.R.I.B.A.

It was reported that the branch societies had made the following elections to the council of the Association :—

Berks.—Mr. E. Steward Smith, F.R.I.B.A., Vice-President. Members of the Council :—Messrs. S. E. Burrett, H. M. Lewis, A.R.I.B.A., W. H. Rising, F.R.I.B.A., J. T. Saunders, F.R.I.B.A., A. W. Saxon Snell, F.R.I.B.A., F. E. Wapshott, L.R.I.B.A., F.S.I., A. B. West, F.R.I.B.A., and F. Woods, F.R.I.B.A.

Bucks.—Mr. G. Langley Taylor, F.R.I.B.A., Vice-President. Members of the council :—Messrs. A. R. Borrett, A.R.I.B.A., A. Foxley, F.R.I.B.A., W. D. Hartley, A.R.I.B.A., C. S. Kimpton, A.R.I.B.A., and H. J. Stribling, A.R.I.B.A.

Oxon.—Mr. W. Austin Daft, A.R.I.B.A., Vice-President. Members of the council :—Messrs. F. E. Openshaw, A.R.I.B.A., R. F. Dodd, F.R.I.B.A., T. Rayson, F.R.I.B.A., G. Hastwell Grayson, F.R.I.B.A., and N. W. Harrison, F.R.I.B.A.

The President reported that steps had been taken by the council to form a Joint Consultative Committee of Architects, Builders and Quantity Surveyors for the area of the Association, and that he hoped that, if the Association would confirm this action, it would result in the smoothing out of any difficulties that might arise in connection with building schemes. The meeting unanimously approved the proposal.

After the meeting all who were present proceeded on a round of visits which had been arranged by the members of the Berkshire Society. The first stop was made at the Jesus Almshouses, at Bray, where the party was welcomed by the warden, and shown round the quadrangle, chapel and pleasant grounds and gardens.

Ochwells Manor was next visited, where Sir Edward Barry, the owner, kindly permitted his beautiful fifteenth century house and grounds to be inspected, and himself took round sections of the party and explained the history of the different parts of the building.

After this, a visit was paid to the celebrated fourteenth century church of Shottesbrooke, the architectural features of which were described by Mr. C. B. Willcocks, while Mr. H. Morley gave an account of the interesting brasses in the church.

On returning to Maidenhead the other two branches of the Association were entertained to tea at the "Show Boat" Restaurant by the Berkshire Society of Architects. The visit to a structure of ultra-modern type formed an interesting climax to a round of visits to historic buildings.

NORWICH ENGINEERING SOCIETY.

The new President of the Norwich Engineering Society is Captain G. Roadley-Simkin, M.I.Struct.E., of Messrs. Archibald Dawnay and Sons, Ltd. Messrs. V. Alexander Pask and G. Egles are the vice-presidents. Assuring the members, at a recent meeting of the Society, that he would do all in his power to further the interests of the Society, Captain Roadley-Simkin referred to the many distinguished engineers who had been president, and mentioned that he was the first structural engineer to hold the position. In his annual report, the hon. secretary (Mr. R. G. Green) stated that the present paid membership was 192, including members, associates, and students. After thanks to the various lecturers and a record of the Society's activities during the past year, the report recorded with regret the death of two members, Mr. J. B. Willis and Mr. Wensley Palmer. Mr. Willis was a founder member and a past president, whose memory the Council had decided to perpetuate by offering annually a memorial prize consisting of a certificate and £2 2s. for the best associate lecture or paper given during the session.

ILLUSTRATIONS.

(Continued from page 890)

the newspaper industry. The basement contains a convocation hall to seat about 1,800 people. The ground floor has two lesser meeting halls with shops towards the street. The upper floors are arranged to be let as offices, and above the main building is the library of the Newspaper Club, with stack rooms in the tower for the storage of books. The building will be faced with Portland stone upon a base of black granite rising to the first floor level.

Mr. J. J. Joass, F.R.I.B.A., is the architect.

Buckfast Abbey.

Structurally, Buckfast Abbey, South Devon, which has been erected on foundations that date from the twelfth century, is now complete, as shown in the view which we give, though the internal decorative treatment remains in some part to be completed.

Mr. E. J. Walters, L.R.I.B.A., is the architect.

Houses at Hayes, Middlesex.

The house in Station-road (page 898) was recently completed for Mrs. Fred. Odell, Mr. W. S. Fry, of Cowley, being the contractor. The house illustrated on page 897 was erected adjacent to the factory of the Hayes Cocoa Co., Ltd., for occupation by the manager of the company. Most of the work was carried out by the firm departmentally, under the direction of the architects, Messrs. J. M. Wilson and T. Elson Hardy, L.R.I.B.A., who were responsible for both houses.

Coventry School Competition.

The design which we illustrate was awarded a premium of £100 in the competition recently promoted by the Coventry Education Committee. Mr. R. Hellberg, A.R.I.B.A., is the architect.

NOTES ON CURRENT LAW CASES

LIABILITIES TO CHILDREN IN THE EXECUTION OF WORKS.

A RECENT case in the Court of Appeal—Liddle *v.* Yorkshire (North Riding) County Council (*Weekly Notes*, May 5)—again draws attention to that difficult question: What is the liability placed upon owners of property, or persons carrying out public works, to children who come upon the premises or frequent the works? In the third article on "Extra-Contractual Liabilities of Employers and Contractors," in our issue December 21, 1928, we touched upon this subject, but since that date there have been at least two decisions of the House of Lords bearing upon this matter, and a reconsideration of the question may be of service.

The material facts in the above case were that the defendant Council were carrying out a road improvement consisting of making a sharp turn an easier one at a corner, and a retaining wall, 4 ft. 6 in. in height, had been erected with a castellated top. In the course of the operation a quantity of soil was stacked upon the new verge against the wall, reaching nearly to the top of the wall below the castellation. It was in course of being removed, but on Saturday, September 24, 1932, when the men left work, sufficient was left to make a slope giving access to the wall top. The road work at that date was not completed. On the day in question, after the workmen had left, two boys, aged nine and ten years, were sitting on the top of the wall, having apparently reached it by climbing up the heap of soil, and later they were joined by the infant plaintiff, aged seven; all these boys admitted having been told by the workmen not to go on the wall, the two older boys because they might tumble off, and the youngest had been "warned off" the job. Whilst the boys were sitting there the plaintiff, in gesticulating to describe the flight of bees, fell backwards and sustained injuries, the subject of this action. At the trial at the assizes the jury had awarded £1,500 as damages, and this was an appeal to the Court of Appeal. The case is also reported in *The Times*, April 24, and we are indebted to both reports in compiling this note; but only one judgment, that of Lord Justice Scrutton, is at present reported in full.

It appears that it was agreed before the Court that had the plaintiff been an adult there would have been no cause of action in the circumstances of this case, and that the cause of action (if any) in the case of this infant must be that the defendants had created an attractive and dangerous combination which led the boy into danger, and that they had not taken sufficient steps to prevent him from being tempted into the danger. The Court cited what was said by Lord Justice Hamilton in Lathom *v.* Johnson (1913, 1 K.B. 398; *The Builder*, December 21, 1928), that English law has been very ready to find remedies for the injuries to children, but found that in this case there was no evidence on which a reasonable jury, duly directed, should find negligence against the defendants, for the plaintiff was a trespasser and the defendants had been guilty of no negligence, and it could not either be said that the heap of soil was a nuisance, as it was on undedicated land, not on the highway, and it certainly did not cause the plaintiff to fall off the wall.

In Robert Addie & Sons *v.* Dumbreck (1929, A.C. 358; *The Builder*, April 25, 1930), the House of Lords dealt with a case where a child was a trespasser, and the general law as to trespassers was laid down by Lord Hailsham, L.C., as follows:—"Towards the trespasser the occupier has no duty to take reasonable care for his protection, or even to protect him from concealed danger. The trespasser comes on the premises at his own risk, and an occupier in such a case is only liable where the injury is due to some wilful act involving something more than the absence of reasonable care. There must be some act done with the deliberate intention of doing harm to the trespasser, or at least some act done with reckless disregard of the presence of the trespasser." It is to be observed that Lord Dunedin in the same case expressed the opinion that in cases of trespass there can be no difference between children and adults, and in the case we are considering, Lord Justice Scrutton quoted a passage from the work of Mr. Justice Salmond on Torts (a judge of the Supreme Court of New Zealand), to the effect that the humanitarian impulse which seeks to impose upon occupiers of premises a legal duty in the guardianship of infant trespassers will in the long run do more harm than good; the duty of preventing babies from trespassing on railway lines should lie upon their parents and not upon the railway company.

It may be asked, how then does the distinction which is to be found in the law reports in the case of infants as compared with adults arise? The answer to this question will be found to lie in the fact that under certain circumstances the infant trespasser is treated as a licensee, or even an invitee, as will be shown by the following cases. Thus, the case of Cooke *v.* Midland Great Western Railway of Ireland (1900, A.C. 229; *The Builder*, April 25, 1930), a case cited in the case we are considering, but distinguished from that case by the Court. The railway company kept a dangerous turntable on their land close to a public road easily accessible from the road by a well-worn gap in the fence. Children were in the habit of playing with the turntable and the railway company took no steps to prevent them and the children were held to be licensees, if not invitees, and a child of five years was held entitled to damages. This case affords an example of the "attractive and dangerous combination" in the nature of a trap mentioned by Lord Justice Scrutton in the present case.

In Excelsior Wire Rope Co. *v.* Callan (1930, A.C. 404; *The Builder*, April 25, 1930), the Wire Rope Co. had obtained a licence to place a post to which a block was attached through which ran a wire rope to draw trucks up to their works, on land of another owner, and, unfenced from this post and block, was a playing-ground for children. The spot near the post was attractive to children as there was a little stream there in which were fish, and bushes in which the children played "hide and seek," and the company knew that children swarmed there and played with the wire. The wire rope was used intermittently about three times a week, and before it was used it was necessary for men to go down and adjust the sheave, and when they did so they warned the children, but it was admitted they did not visit the block expressly for the purpose of warning the children, and on the occasion of this accident they had visited the block and returned without being clear when they started the machinery that the wire was free from children. In this case the House of Lords held it was unnecessary to determine whether the child of five years of age was a licensee or an invitee, as the case fell within the definition given by Lord Hailsham in Addie's case, that the defendants' servants had acted "with reckless disregard of the presence of the trespasser," and were liable.

Another example falling under the same category is furnished by the case Mourton *v.* Poulter (1930, 2 K.B. 1930, *The Builder*, April 25, 1930), where a piece of waste land adjoining a highway, unfenced, and used as a playground by children, was being laid out as a building estate, and an independent contractor engaged in felling trees, knowing that a tree would fall when the last root was cut, severed that root without warning to the children, and a Divisional Court constituted of two Lord Justices of Appeal, following the Excelsior case, reversed the judgment in the County Court and entered judgment for the infant plaintiff, but the Court found some difficulty in distinguishing the Excelsior case from Addie's case.

Addie's case does present great difficulties, as the facts are very similar to the Excelsior case, but the House of Lords held that a child of a little over four years who was a trespasser was not entitled to recover damages. In this case, on the plaintiff's own land was a heavy horizontal wheel, round which a cable passed, and the machinery to put the wheel in motion was operated from the pit-head, from which the wheel was not visible. This wheel was also used intermittently. The field in which this was placed was, to the knowledge of the owners, used by the public and young people, and there were two notice-boards that trespassers would be prosecuted; but Lord Dunedin expressed the opinion that such notices by themselves would not prevent a judge or jury from holding implied permission, but here the owners had repeatedly warned the public off, and Lord Dunedin is reported as having said: "When a proprietor protests and goes on protesting, turning away people when he meets them, as he did here, and giving no countenance in anything he does to their presence, no such permission can be implied." Here the machinery was on the land of the owners, but in the Excelsior case, Lord Dunedin said that the fact that the owners of the machinery in that case were not occupiers of the land, but licensees for the purpose of the piece of machinery, made no difference as regards the liability. Lord Justice Scrutton, in Mourton *v.* Poulter, suggested that the distinction between the two cases in the House of Lords lay in the fact that in Addie's case the wheel was not visible to those setting the machinery in motion, whilst in the Excelsior case the man who gave the signal was only twenty yards away, and could have seen the children if he had looked round, without moving from his position.

Perhaps we may venture to suggest one or two other distinguishing features between the two cases. In the Excelsior case, the dangerous machine stood by itself, not on land owned by those who worked it, from which persons could be excluded, as in Addie's case, but close to playing-grounds and in a position offering other attractions to children; and there was evidence that the machinery could not be used unless employees first visited it, and as those employees were on the spot there was doubtless a duty laid upon them to warn the children—a duty which was probably usually undertaken but omitted on this occasion, and the machine thus formed something in the nature of a trap, in the absence of a customary warning. In Addie's case the machine stood on the land of those working it, and it was held that the warnings given to exclude the public from the land were all that could suffice.

HOUSING ACTS.—LAPSE OF SCHEME.—NEW SCHEME.

WE may very briefly note two points raised in connection with improvement schemes before the Court of Appeal in the recent case, Ellen-street Estates, Ltd. *v.* Minister of Health (1934, 1, K.B. 590). In about the year 1922, one Nathan Lithman had acquired a sub-lease for a term of sixty years of certain property in Stepney, since assigned to the Ellen-street Estates. At the time Lithman acquired this property he was unaware that under the Housing Acts, 1890 to 1921, the County Council had passed a resolution to deal with the area, including his property, by means of an improvement scheme. A local inquiry had been held, at which no real objection to the scheme was raised by Lithman, as he was under the impression he would obtain compensation, and the scheme was duly confirmed by the Minister. The houses in question had been included in the scheme as being, "by reason of their bad arrangement or the narrowness or bad arrangement of the streets, dangerous or injurious to the health of the inhabitants of the area." An arbitration was held, in which it was held that no compensation was payable to Lithman, but no point arises as to this, except that Lord

Justice Maugham pointed out the absence of consideration might have occasioned some difficulty if the Council had required a conveyance. What occurred, however, was that more than three years elapsed from the date of the confirmation before the Council sought to put in force their powers as regards this property, and then it was discovered that the compulsory powers had lapsed. In these circumstances, the Council decided to start afresh by an application under section 1 of the Act of 1930, and a local inquiry was again held, and after objection on behalf of Lithman had been heard, the Minister confirmed this new order. The Council then having proposed to exert their compulsory powers for acquisition, the Ellen-street Estates, as assignees of Lithman, under section 11 of the Act of 1930, applied to the High Court to have the order quashed. A judge of the High Court had dismissed this application, and this appeal was from his decision.

The two points raised by the applicants on the appeal were (1) that the Minister had had no jurisdiction to revoke or repeal the former order by the new order, as under section 64 of the Act of 1930 it was preserved; and (2) that the new order which applied—the Land (Assessment of Compensation) Act, 1919, as modified by the Act of 1930—was *ultra vires*, as there had been no repeal of the 1919 Act. The Court, without calling upon counsel for the County Council, dismissed the appeal and upheld the decision of the Court below. Lord Justice Scrutton is reported as having said: "I cannot understand why a plan for an area which has been sanctioned but cannot be carried out owing to the lapse of time prevents new proceedings being taken in respect of the same houses which by their situation are in a condition dangerous to health"; and Lord Justice Maugham put the matter thus: "I can find nothing in section 64 which precludes a fresh scheme under the new Act being prepared by virtue of a resolution under section 1 and the consequent proceedings as regards a closing order." As regards the second point, the Court approved the decision of a Divisional Court in Vauxhall Estates, Ltd. *v.* Liverpool Corporation (1932, 1, K.B. 733; *The Builder*, December 11, 1931). Section 7 of the Acquisition of Land Act, which was relied upon by the applicants, provides that "the provisions of the Act or order by which the land is authorised to be acquired, or of any Act incorporated therewith, shall, in relation to the matters dealt with in this Act have effect subject to this Act, and so far as is inconsistent with this Act those provisions shall cease to have or shall not have effect," and contains certain saving expressions as regards other Acts, including the Housing Act, 1890; but there is a marginal note, "effect of Act on existing enactments." Marginal notes are no part of the statute, but the Court held that the effect of this section was expressed in the marginal note, and that it was impossible to tie the hands of Parliament in the manner suggested by the applicants, and that section 64, so far as its provisions were inconsistent with the Act of 1919, repeals by implication the provisions of the latter Act.

Fair Rent Courts: Ulster Opinion.

The Northern Ireland Government has repudiated a demand for the setting up of fair rent courts. The Government's decision was made known by the Minister of Home Affairs (Sir Dawson Bates). As a result of the subsidy, something like 24,700 houses had been built in Northern Ireland, and the total subsidy amounted to £2,141,000. That was apart from the provision of labourers' cottages. But in spite of that they found the most ridiculous proposition made in the House of Commons a few days before—that fair rent courts should be set up. He could not imagine anything more absurd or anything that would do more to frighten away the investor. The Government believed that the only way to get houses built in Northern Ireland was by allowing the economic laws to operate.

NEW TOWNS FOR OLD IN SOVIET RUSSIA

DURING the period which has elapsed between the Sixteenth and Seventeenth Party Congresses, much work (according to the Press Service of the Soviet Union Year Book) has been carried out in the reconstruction and building of dwelling houses and municipal enterprises in the U.S.S.R. As many as 500 new towns have grown up, as well as dozens of industrial settlements. The face of the old industrial and administrative centres has undergone a radical change. The squalid, dirty factory districts, lacking in every civilised amenity, have given place to well-arranged workers' quarters with wide thoroughfares, trees and open spaces. A marked decline is shown in the death rate, particularly among children.

"During the period of the first five-year plan and 1933, the first year of the second five-year plan, 30,000,000 square miles of new dwelling space (*sic*) was handed over for exploitation, representing 80 per cent. of the total dwelling space available in 1929 on the territory constituting the U.S.S.R. The new construction during this period in municipal enterprises included 73 new water conduits, which have increased the water supply by 1,200,000 cubic m. per day, or by 230 per cent., as compared with 1928. Much construction has also taken place in urban drainage. Previously, Russia built 21 urban drainage systems in 50 years; Soviet Russia has built 24 in six. There has been extensive building of public baths and mechanical laundries. During the period under review 500 new municipal baths and 82 mechanical laundries have been given over for exploitation. These do not include the new baths belonging to the different industrial enterprises and departments.

"The tramway system has been reorganised. The network of lines has been considerably extended, new types of trams have been introduced, and more modern equipment. A number of tram repair factories have been built, the biggest of which, in Leningrad, is to be started this year. Fifteen new towns have acquired tramway systems; 800 kilometres of new ways have been laid.

"The motor bus as a means of transport has been widely introduced. At present there are motor bus services in 100 inhabited points. A trolley-bus service was introduced in Moscow in 1933. Lastly, mention must be made of the Moscow Metropolitan Railway—the first underground railway in the U.S.S.R.—a section of which, 11.9 kilometres long, is to be started at the end of this year.

"Of other municipal enterprises, an important one is the central heating of towns. A number of central-heating stations have been built, and still a greater number are in course of construction. Gas supply systems have been instituted in Moscow, Odessa and Kharkov. In Leningrad one of the biggest municipal gas works is now being completed. The network of municipal electric power stations has been extended. Their output of electric energy in 1933 reached 710,000,000 kwt.-hours. Many new surfaced roads have been made. Many trees have been planted, and big open spaces provided in the form of parks of culture and rest.

"The Seventeenth Party Congress, which took place at the beginning of this year, laid down definite tasks to be carried out in urban reconstruction under the second five-year plan. These included the transformation of hundreds of industrial centres into properly planned towns with civilised amenities, the building of thousands of apartment houses, or blocks of flats, with all modern conveniences, having an aggregate dwelling accommodation of 64,000,000 square miles, the improvement of urban transport systems, water supplies, drainage, paving of streets, planting of trees, etc. During the five years the number of towns having water conduits is to be increased from 366 to 440, the number of towns with drainage systems from 55 to 125, and those with tramways from 50 to 70.

"Under the first five-year plan the amount invested in the building of houses was 4,000,000,000 roubles, and the dwelling space handed over for exploitation was 23,000,000 square miles. Under the second five-year plan—1933-37—the investments in house-building will amount to 13,400,000,000 roubles, and a dwelling space of 64,000,000 square miles will be made available for exploitation.

"In the main, the new type of dwelling-house consists of flats with all modern conveniences necessary for a worker's family, as well as common-rooms, including crèches, kindergartens, dining-rooms, club-rooms and other premises for cultural purposes. Special attention is paid to the outward architectural form, and, as regards the interior, stress is now laid on soundproof walls, hygienic building materials, ventilation, etc. The designing of new types of furniture, sanitary appliances and other equipment commensurate with modern requirements is also receiving attention.

"The total amount to be expended on the building of municipal enterprises during the five years—that is, building carried out directly by the municipalities—is 6,200,000,000 roubles. As compared with the first five-year plan, this represents an increase of 234 per cent.

"The municipal works include mainly new water supplies, drainage systems and systems of street cleaning. In regard to water supplies, the first on the programme are new water conduits from the river Severni Donetz to Kharkov, from the Dneiper to Kiev, a second Baku water conduit; the reconstruction and extension of the water conduits in a number of towns like Moscow, Sverdlovsk, Dniepropetrovsk, etc. In regard to drainage, 70 new systems are to be built in different towns.

"Transport is the second on the list. All existing tramways are to be reconstructed; transition will be made from the narrow to the wide track; new tramway systems are to be built in 20 towns; the network of tram repair shops is to be considerably extended. Many more motor bus services are to be introduced, many taxis added, and the water transport system is to be enriched by a greater number of mechanically propelled vessels.

"A considerable programme is indicated in the planting of trees in urban areas; this is to become an integral part in the reconstruction of towns. Lastly, the Moscow Metropolitan Railway is at the end of the five-year period to hand over 36 kilometres of double-track lines for exploitation."

ACCIDENTS IN BUILDING

"The unenviable record of the building industry of being responsible every year for the highest number of fatal accidents of any of the industries subject to the provisions of the Factory and Workshop Acts, and for a large number of non-fatal accidents," was referred to by Mr. G. Stevenson Taylor, H.M. Deputy Chief Inspector of Factories, at the National Safety First Congress. In that industry, he said, over 30 per cent. of all accidents and over 70 per cent. of the fatal cases were due to falls of persons, while 13 and 15 per cent. respectively were due to falls of articles and materials. About 30 per cent. of the fatal and 5 per cent. of the non-fatal accidents were due to breakage or defect in the plant. That clearly indicated that unsuitable and inadequate plant was often used during the construction of buildings. This was particularly marked in the case of jobbing builders in connection with buildings which were not subject to the codes of building regulations. It must, however, be recognised that the building industry was particularly one in which safety depended on the human element. Many of the accidents would not occur with more thought, less carelessness, and less callousness to danger. A striking example of indifference to danger was afforded by a foreman steel erector, who walked along an 18in. steel girder 75 ft. above the ground while reading a plan. He walked off the end of the girder and was killed.

NEW PUBLIC WORKS

Brighton.

The Ministry of Health has sanctioned Brighton Corporation's scheme for a lawn tennis ground at Withdean, in the borough, and on the main London-Brighton-road. The ground will have a grand stand which will seat 4,000 spectators round one court alone. The cost is estimated at £30,000.

Cheadle.

Cheadle R.D.C. has appointed a committee to go into the question of the construction of new council offices.

Dorset.

Dorset C.C. is to erect the new county library building and clinics at Colliton Park, Dorchester, in brick with Portland stone dressings, at a cost of £4,400.

Hammersmith.

Hammersmith B.C. invites tenders for the demolition of property at Bridge-street and Lower Mall. Details are obtainable from the Borough Engineer and Surveyor, Town Hall, W.C. Tenders must be returned by June 11.

Hornsea.

A Ministry of Health inquiry has been held into the application of the Hornsea Urban District Council for permission to borrow £15,000 for the purpose of building a bathing pool on the South Promenade.

Kent.

The Metropolitan Water Board invite tenders (deposit £10) for the construction of a Diesel engine-house, etc., at Sundridge pumping station, Brasted, Kent. Plans are by the Chief Engineer's Department. Tenders are returnable by June 19.

Lancing.

A mixed senior school is to be erected at Lancing by West Sussex C.C., to plans by Mr. C. G. Stillman, F.R.I.B.A., County Architect, North-street, Chichester. Applications to tender (upon deposit of £2 2s.) must be made by June 11, and tenders must be returned by July 2.

Leeds.

Leeds T.C. has decided to invite tenders for the erection of 796 houses and flats on the Gipton estate.

Letchworth.

New public offices and conveniences are to be erected in Broadway, Letchworth, to plans by Messrs. Bennett and Bidwell, 1, Leys-avenue, Letchworth. Tenders (deposit £3 3s.) are now invited, returnable by June 15.

Llanelly.

Llanelly Housing Committee has decided to apply to the Ministry of Health for sanction to build a further 350 houses, of which 50 should be of the four-bedroom type. The Borough Surveyor is Mr. J. H. Montgomery.

Lytham and St. Annes.

The sum of £15,000 is to be spent by the Lytham St. Annes Corporation in making a miniature golf course and a children's boating pool on the foreshore at St. Annes between the pier and the open-air baths. The scheme includes the construction of protective works against the possible invasion of the area by the tide.

Manchester.

A central public mortuary, costing about £15,000, is to be provided in Manchester by joint agreement of the Watch and Public Health Committees. Accommodation will be provided for 40 bodies, and there will be a chapel. Plans are already being prepared by the City Architect, Mr. G. Noel Hill, A.R.I.B.A.

Middlesbrough.

The tender of Messrs. John McCreton, Ltd., at £6,181, for alterations and additions to the tuberculosis ward at Holgate Hospital has been accepted by the Middlesbrough Hospitals Committee.

Northern Ireland.

A vote of £122,535 for public works and buildings was passed by Northern Ireland House of Commons. Assignations include £20,000 for conversion of old military barracks, Enniskillen, to R.U.C. depot, £3,600 for alterations to Belfast Central Employment Exchange, and £7,000 for architectural services Haypark Special School for mentally defective children.

Southend-on-Sea.

Alterations and additions are proposed to the Public Assistance Offices, at Victoria-avenue. Tenders (deposit £2) are now invited, returnable by June 12.

Torquay.

The Corporation have placed a £36,000 contract with Messrs. R. E. Narracott & Co., of Torquay, for a new electricity depot.

Tottenham.

The U.D.C. has placed a contract for the erection of houses at Weir Hall estate with Messrs. M. J. Gleeson, Ltd., of Sheffield, the price being £10,516 18s. 6d. The Council had previously recommended the acceptance of the Borough Engineer's Department which tendered at £17,482.

Watford.

Herts C.C. Education Committee invite tenders (upon deposit of £2 2s.) for the erection of a new school building in the playground of the Victoria Boys' C.C. School, Addiscombe-road, Watford, to plans by Lt.-Col. A. E. Prescott, County Surveyor and Architect. Tenders are returnable by June 15.

Weymouth.

Dorset C.C. is to erect new buildings at the Grammar School, and is inviting tenders, to be returned by June 18. Applications to tender (deposit £2 2s.) must be made to the Clerk, County Offices, Dorchester, by June 1. The quantity surveyors are Messrs. Broad and Dockerill, FF.S.I., Lansdowne, Bournemouth.

Wolverhampton.

The Borough Council has adopted a resolution of the Housing Committee accepting the tender of J. F. Hughes and Son, Wolverhampton, amounting to £58,060, for the erection of 214 houses, on the Low Hill estate, and that the road and sewerage works be carried out at a cost of £9,000.

LAW REPORT

KING'S BENCH DIVISION.

Before MR. JUSTICE SWIFT.

ACTION BY ARCHITECT FOR FEES.

Greenfield v. Farrer.

This was an action brought by Mr. Thomas Greenfield, A.R.I.B.A., of Midhurst, Sussex, to recover from Mr. Anthony T. Farrer, of Little Austins-road, Farnham, Surrey, £156 as damages for alleged breach of contract, or alternatively as remuneration or fees due to him as architect and surveyor.

Mr. Greenfield's case was that in October last year, Mr. Farrer verbally agreed to employ him as architect and surveyor in connection with the proposed building of a house at Dogmersfield at fees according to the R.I.B.A. scale, and after he (Mr. Greenfield) had done certain work in accordance with the agreement and obtained tenders, Mr. Farrer declined to proceed with the building.

Mr. Farrer's defence was that he requested Mr. Greenfield to prepare plans and specifications for a house to be built at a cost of not more than £2,400, and that the lowest tender obtained on the plans and specifications prepared was £3,770. Mr. Farrer contended that the house designed by Mr. Greenfield could not have been built for less, and accordingly that the work done by Mr. Greenfield was not in accordance with the agreement. Mr. Farrer paid into Court £21 in satisfaction of a claim by Mr. Greenfield in connection with the inspection of certain sites.

Mr. Greenfield, having given evidence in support of his claim, and evidence having been given for the defence, his lordship, in giving judgment, said he had no doubt that Mr. Farrer was asking for something which he believed he was going to get cheaply, and that Mr. Greenfield, on the other hand, was telling him that it could not be done at the price of £2,400 and that it would cost a good deal more. That being the state of mind of the parties, Mr. Farrer told Mr. Greenfield to get out the plans and specifications and ask for tenders and then they would see whether the work could not really be done for £2,400, and Mr. Farrer found that he could not get it done and that £3,770 was the cheapest figure. He (the Judge) thought that when the order was given to Mr. Greenfield there was not either expressed or implied in the contract any provision that he should not be paid his ordinary fees unless the tenders came down to £2,400. Mr. Greenfield was ordered by Mr. Farrer to do work and he was entitled to be paid for it. Mr. Farrer was, of course, at liberty to decline to carry out the building if he found it too expensive; but having engaged an architect to prepare plans and specifications and get in tenders, it was not only fair and proper, but it was part of the contract, that he should pay the architect on the reduced basis according to the amount of work which would have been done if the work had gone on. He found that Mr. Greenfield had properly earned his fees of £156, and he gave judgment for him for that amount with costs, and he directed that the £21 in Court should be paid out to Mr. Greenfield's solicitors in part satisfaction of the £156.

INTERNATIONAL CONGRESS FOR STEEL DEVELOPMENT

An International Congress for Steel Development is to be held in London from June 20 to 23. The following papers will be presented at the Institution of Civil Engineers :—

1. Building Regulations on the Use of Steel. M. L. G. Rucquoi, Belgium.
2. Fireproofing of Steel Framed Structures. M. Van Genderen Stort, Holland.
3. Rigid Frame Construction. Herr Maier Leibnitz, Germany.
4. Strength of Steel Columns with Concrete Cores. Herr A. Kloppel, Germany.
5. Factory and other Utility Constructions. Prof. Ir. R. L. A. Schoemaker, Holland.
6. Full Scale Tests on Steel Framed Structures. Dr. F. J. Baker, Great Britain.
7. Steel Sheet Usage in Building Construction. Mr. Frank Main, United States of America.
8. Housing Schemes employing Steel Frame Construction. ——, France.
9. Working Class Flats at Rotterdam. M. T. Elshout, Holland.
10. The Architectural use of Sheet Metal Products. Mr. Francis Lorne, F.R.I.B.A., Great Britain.
11. Designs for Palais de Expositions, Paris. M. L. Icre, France.
12. Long Span Bridges. Mr. R. Freeman, M.Inst.C.E., Great Britain.
13. Steel Pit Props and Mine Arches. Major H. M. Hudspeth, Great Britain.
14. Welded Steel Frame Construction in Poland. Prof. Bryla, Poland.
15. The Application of Welding to Railway Rolling Stock. M. A. Brandt, Poland.
16. Types and Tendencies in Steel Bridge Design. Mr. T. C. Grisenthwaite, B.Sc., M.Inst.C.E., Great Britain.
17. Application of Vierendeel Truss in Building Construction. Mr. P. C. G. Hausser, B.Sc., Great Britain.

Further particulars of the Congress will be announced later.

INQUIRY BUREAU

QUESTIONS.

Moving Forms for Reinforced Concrete.

SIR,—Is the moving form for reinforced concrete construction applicable to rectangular structures as well as to the silo type of building? Can you also inform me what height of building is necessary to make it worth while adopting this method? Lastly, is there any patent attached to the scheme? If any of your readers can help me on these points I should be most grateful. J. N. R.

Cinemas: Cost Per Seat.

SIR,—What figure may be taken as an approximate cost per seat of a modern cinema, including furnishings, heating, ventilation, etc., but excluding cost of land and projecting and sound apparatus? I have in mind a plain brick-faced, artificial-stone dressed building without applied external decoration and with plainly decorated interior, seating 1,000 persons in stalls and circle. FLIX.

Semi-Permanent Construction.

SIR,—I have seen details recently of buildings erected in what is called "Semi-permanent" construction, by which is meant a timber-framed structure faced with metal lathing and cement rendered. Have any of your readers had experience of this type of building, and, if so, can they tell me how they compare in cost and efficiency with a brick-built structure? I have in mind the erection of a school. Also, how do they stand in relation to by-laws of local authorities?

J. W.

Portland and Artificial Stones.

SIR,—I am getting out a design for municipal buildings, to be built in brick with stone dressings. Can any of your readers tell me what would be the approximate difference in cost between dressings of Portland stone and artificial stone? CIVIC.

ANSWERS.

Beetles: Method of Destroying.

[ANSWERS TO "VERY ANXIOUS," MAY 18.]

SIR,—Spraying with a strong solution of formalin, as suggested in your editorial reply, is an effective treatment, and if persevered in, an excellent deterrent. Even more diligent action is, however, necessary, and the setting of traps, baited with beer and syrup, should be resorted to to reduce numbers. If your correspondent will persevere in such a campaign (it may take many weeks), the nuisance should become abated and ultimately completely cured. PEST.

SIR,—Insecticides are to a great extent useless against beetles if their breeding place still exists. In the case in question, since the old building seems to lend itself for breeding, the best way would be to demolish it, taking care to remove all the old masonry and timber. If this cannot be done, spray the building with insecticide, then apply a cement plaster so that all cracks and crevices are filled up. Any old woodwork or masonry in the vicinity of the houses should be destroyed, and any cracks in the houses or outbuildings should be filled with cement plaster. Then give a good spraying with insecticide for beetles, repeating until the beetles disappear. If thoroughly carried out, I think this treatment will be found effective. A thorough inspection will be necessary to ensure that all crevices are filled up.

W. E. W.

[A reply from the Sanitary Floor Co., Ltd., giving details of their "Konax" insecticide, has been forwarded to our correspondent.—ED.]

Steelwork: Protection from Corrosion.

[ANSWER TO "WORKS MANAGER," MAY 18.]

SIR,—If the trouble is due to abrasion only, surfacing of any description is useless. Granite and cement-rendered brickwork will give under a powerful sand blast, as evidenced by some of the exposed buildings here. If the corrosion is due to atmospheric causes—or acid fumes from factory or local chemical products—the best way to deal with the trouble is for local laboratory to devise a counter chemical which will annul the destructive action so caused. I am intensely interested in this, and should like to be put into touch with "Works Manager," as I may be able to assist him with a trial of a new undercoating I have successfully evolved for dealing with rust and general corrosive troubles.

PERCY G. YOUNG.

NATIONAL HOUSING

THE Committee which, under the chairmanship of Lord Amulree, are examining the problem of national housing, have submitted for the consideration of the Government the major conclusions which have emerged as a result of their discussions up to the present. Excerpts from the Committee's interim report are as follow:—

Our proposals are designed to supplement the Government's active programme for slum clearance, reconditioning, and relief of overcrowding, by providing for the outstanding need for new houses which can be let at rentals, inclusive of rates, of 10s. a week and under. The great majority of the houses built since the War do not fall within this category. Only so can the overcrowding, which is the root cause of slums, be overcome. . . . The provision of housing accommodation, not below a minimum standard, for every family in the United Kingdom, should be accepted as a public responsibility and a national service, as the provision of a pure water supply or a minimum standard of education has been accepted. It should be the aim to achieve this objective in 10 years. The magnitude of the task is such that piecemeal and unco-ordinated efforts must inevitably fail. In addition to houses required to replace slum dwellings, there is a need within the next 10 years for at least 1,000,000 new houses to be let at rentals (inclusive of rates) of 10s. a week and under to the lower-paid worker. Past experience is proof that this need cannot be met by private enterprise, which, in any case, will be actively occupied for many years to come in supplying houses for those with larger incomes, and in building enterprise other than housing. Any public scheme to meet the demand for lower rented dwellings will therefore supplement and not compete with private enterprise. . . . Any such policy demands adequate administrative machinery, expert control, and a continuity of policy able to survive changes of Government. These could be realised through the creation of a Housing Commission under the Minister of Health, to take charge of the administrative and executive functions of his department in relation to housing. It should be set up with a full-time independent non-Party chairman. Suitable parallel arrangements should be set up for Scotland and Northern Ireland. It should be responsible to Parliament through the Minister, and should be national in scope and status, being comparable to the Central Electricity Board. It will have close liaison with the Ministry of Transport and other departments. The commission will work in full co-operation with local authorities. . . . The housing commission should have the power to raise money to finance housing programmes, in particular by the issue of a national housing stock, and should be the official lending authority for housing. Such stock should carry the full guarantee of the Government in order to keep cost at a minimum. If it can be issued on a 3¼ per cent. basis, the rents of minimum standard houses can be reduced to such a figure as to bring the economic rent within the ability to pay of the wage-earner in all but exceptional classes of cases. . . . For a million new houses a capital sum of £400,000,000 would be ample. Not more than £60,000,000 would be required in any one year. A considerable portion would, in any case, be raised independently, as at present, by the larger local authorities, but even if the maximum figure is taken there is no need for alarm as to the obligations which the nation would thus shoulder. The charge for interest and sinking fund to redeem capital should not exceed £16,000,000 a year, and it is unlikely that any part of this charge would fall on the Exchequer. The issue of national housing stock on this scale should not adversely affect the market for gilt-edged securities. Indeed, in existing circumstances, a big building programme is one of the most constructive ways of dealing with the problem of unemployment. Over 80 per cent. of building costs, apart from site values, go directly or indirectly into wages. . . .

It is essential that the commission should be a planning body, and should co-operate with the statutory planning authorities, co-ordinating activities geographically and controlling the pace of development through time. The right choice of sites, the prevention of ribbon building, the harmonising of housing and transport policies of adjacent areas, are all matters on which expert advice and assistance are necessities. The commission will be in a position to plan housing requirements as a whole on a national scale by time and progress schedules, thus enabling the building and allied industries to forecast and organise production and to maintain standard building costs.

THE WEEK IN PARLIAMENT

Housing (Private Enterprise).

MR. HOLDSWORTH asked the Minister of Health how many houses built by private enterprise without subsidy during the six months ended March 31, 1934, were built to let at weekly rentals of less than 8s. and 10s., exclusive of rates.

SIR HILTON YOUNG said that of the 120,781 houses provided by private enterprise without State assistance during the half-year referred to, 44,754 were of a rateable value not exceeding £13 (£20 in Greater London), and 22,730 were occupied by persons other than their owners. The statistics available did not include a classification of the houses last mentioned according to the rents charged.

Building Societies' Advances.

MR. MITCHESON asked the Minister of Health if he could furnish an estimate of the sum advanced by building societies in the year ended March 31, 1934, to facilitate building operations under the provisions of the Housing Acts.

SIR HILTON YOUNG said he had no information except in so far as advances were made in respect of houses erected with the help of guarantees given in pursuance of Section 2 of the Housing Act, 1933. For this limited purpose the advances made by building societies up to March 31, 1934, amounted to £442,360.

Rehousing Density.

MR. CHORLTON asked the Minister of Health if there was any regulation as to density in rehousing on site in slum-clearance schemes; and, in view of the desirability of these being at a maximum, would he make known to the various towns concerned the high percentage possible, and that had been obtained in practice, in rehousing when higher densities had been adopted.

SIR HILTON YOUNG said that the answer was in the negative. Each case was considered on its merits, having regard to the circumstances of the area and any town-planning restrictions applicable to it. He thought that local authorities were well aware of the position, and it did not seem to him to be necessary to take any special measures to call their attention to it.

National Library of Scotland.

SIR S. CHAPMAN asked the First Commissioner of Works if he could now make any further statement with reference to the proposed building for the National Library of Scotland.

MR. ORMSBY-GORE said that after consideration of the recommendation of the Selection Committee appointed for the purpose, he had invited Mr. Reginald Fairlie to act as architect for the building, and he was glad to be able to say that Mr. Fairlie had intimated his acceptance.

[*** Mr. Fairlie's appointment was announced in our issue for February 2.—ED.]

THE BUILDING TRADE

MATERIALS AND CONSTRUCTION IN THE LIGHT OF MODERN RESEARCH—XX

By B. PRICE DAVIES, F.S.I., L.R.I.B.A., M.T.P.I.

SUNDRY MATERIALS—CONTINUED.

A VERY useful Building Research publication is that entitled "The Effect of Building Materials on Paint Films" (1931). It does not include painting on wood, and wall surfaces are dealt with chiefly. Failures of paint films are "blistering, peeling, flaking, softening, or stickiness, and bleaching or discoloration." The chief factor is the moisture content in the material to which the paint is to be applied. Walls sealed on both surfaces are bad for paint effects. (This is another advantage of cavity walls.) New walls are better when distempered than when painted, for distemper allows for moisture movement without skin disturbance in a better way than paint. Oils such as linseed oils are readily attacked by caustic alkalis in plastered walls, and they form soaps soluble in water.

Lime in solution will also act on linseed oil, but the resultant soap is insoluble in water. The combination of salts and lime is very destructive, and tung oil is less quickly affected. Alkali salts can be in plaster, in brickwork and in sea sand.

The chalk (or white) limes have usually but little alkali salts, and such limes have little effect on paint. Cements and commercial gypsum plasters vary widely in alkali content. The safest way is to carry out a paint test on plaster beforehand, and a mixture of linseed oil and Prussian blue is sensitive to alkali action. The test can be accelerated by putting the test plasters on wet cotton wool after the paint film is dry.

"Lime-fast" paints are not affected by alkalis. Earth colours are generally the most suitable for new walls. It is best to leave the walls to dry out completely, but excellent results have been obtained with a certain distemper on walls of a rushed job which were extremely wet. It is recommended that cement surfaces be not painted for at least a year. There are specific paints which can be used almost immediately on cement surfaces. Casein distemper is said to be not affected by alkalis.

Tung oil resin paints and special inert primers are suitable, and these insulate for subsequent coats of linseed oil. Sodium silicate paints are recommended for use on lime and cement plasters, and fluorides as primers. Sulphate plasters are less likely to cause trouble with paint if without the addition of lime. A wash over new plastered walls with a solution of zinc sulphate is considered good. Another recipe is to give the walls a coating of a mixture composed of alum and sulphate of iron. Even thick papers applied to fresh walls and painted are known to have bad effects. Walls of places liable to great condensation, such as laundries and baths, are best done in white or other tinted cement and not painted or distempered.

Where cement surfaces require treatment to lessen water leakage, such as reservoir walls, bituminous emulsions are found to be suitable. A bitumen content of 50 per cent. proves to be most suitable, and the walls should be damped first. This can be followed up when dry with hot bitumen. These emulsions are now obtained in colours other than black, and great merit is claimed for them. Bituminous paints have an unpleasant odour, and bituminous emulsion and bitumens are better. Bituminous emulsions are not so good for resisting corrosion as bituminous paints.

Fungoid growths of blue mould and those of reddish brown colour derive their food supply from paste or organic paint vehicle, such as linseed oil. In one quarter the opinion is expressed that paints should be made antiseptic. This can be done by incorporation of chlorinated phenolic compounds, and should be helpful for the preservation of wood.

Aluminium paints are gaining in favour, and a recent experience of a pier done with aluminium paint is good. There are different makes, and some of the tried samples gave poor results. Aluminium paint is considered a good primer on wood. The best vehicle for it is stated to be a kettle-boiled oil, suitably thinned and with a drier added. This should be a good rot preventive. Aluminium paint is claimed in one case to be a success on creosoted wood. This is important, for it means a durable coat on an impregnated surface. It is claimed to be suitable on bituminous coatings as well, that it is highly moisture-resistant and non-poisonous. It has a good reflecting value, which is as high as 60 per cent. to 70 per cent. Thus it is suitable for painting corrugated sheets in order to lessen the heat effects below. The paint is little affected by smoke, and is not discoloured by sulphuretted hydrogen. Different vehicles are said to be suitable for different surfaces. Oil is suitable for external walls, a quick-drying lacquer for interior walls, and best stand oil for wooden beams and boarding.

Steel Protection.

Tung oil is recommended as the foundation of anti-corrosive paint because it is impermeable to water. If corrosion has commenced, paint is ineffective, for minute traces of damp, rust, moisture, salt, or acid will produce the failure of any paint. Pre-treatment with a blow-lamp is recommended when any trace of rust is present. The first coat can be regarded as protection against rust, and the top coats as protection against atmospheric influences. Oil paints and bituminous paints should not be used together.

Tradition is still sound in this matter of steel protection, for, in numerous tests, red-lead linseed-oil paints proved to rank with the best. Asphalt chromate emulsion is claimed to be good for steel protection. For combustion fumes, red-lead primers and tung-oil stand mixtures are considered to be not suitable.

Wood Protection.

In the case of weathering and toxic resistance tests on wood, zinc meta-arsenite, copper aceto-arsenite, and copper arsenite were found to be markedly superior to other treatments. Zinc meta-arsenite is proved to be one of the very best resistants to dry-rot. It is odourless, colourless, paintable, and permanent. It is claimed that it trebles the life of wood if properly impregnated. Wood should be dry before painting, or cracks or peeling result. Bituminous coatings are suitable for structures exposed to rain, steam, or chemicals. For rot resistance, impregnation is superior to surface treatment. Uniform penetration into the wood is more desirable than deep irregular penetration.

There are three processes of creosoting—namely, brush application, immersion and impregnating under pressure. Telegraph poles, railway sleepers and wood blocks for roads are examples of the latter, which is certainly the best for such purposes. In one case, timber plates of a ground floor had been destroyed by fungus, although given a brush-applied coating of preservative. Immersion in tanks for four to thirty-six hours in a suitable temperature is superior to brush application. The period varies with the class and species of timber.

Douglas fir will take 9 lb. of creosote per cubic foot by impregnation on the ordinary process. For obtaining this impregnation, "staggered" incisions 1 in. wide and ¾ in. deep are made in sleepers. The temperature of the creosote is kept between 160 deg. F. and 200 deg. F. Where impregnated on the empty cell process, it will take 16 lb., while yellow pine will take 22 lb. Impregnated wood can be a source of trouble if in exposed positions, as in the case of posts, for "bleeding" can occur in hot weather. The odour of creosote may be considered objectionable in some situations. Zinc chloride is another good preservative, and in solution as much as 1 lb. of dry salt can be injected into a cubic foot of timber. It is said to have no injurious effect on strength, shrinkage, expansion, warping, surface-finishing, glueing and hard wear.

Glass.

After months of use, the solarisation decreases in some glasses to some extent, although it may be permanent then. The thicker the glass the less the transmission of the rays. Another modern glass is reinforced glass. In some quarters the square mesh is considered to be better than the hexagonal mesh for non-breakage.

The colour of glass has proved of late to have an effect on flies. Red and yellow glass are the best fly deterrents, and in one case blue and green were said to be not so effective. In another case, blue was claimed to be best. With two rooms, one with clear and the other with bluish-green glass, the insects were much greater in number in the former. The temperature was also higher by about 5 deg. F. to 6 deg. F., and possibly this had some effect. An investigation in Liverpool indicated that the fly is attracted by violet, blue and green, but repelled by red, orange and yellow. Coloured glass affects foodstuffs. Under purple, red and yellow glass, rice products showed signs of rancidity. This was not found to be the case with green glass.

The transmission of sound is less through thick than through thin glass. The best insulation is made by two glasses with space between and without any bridging connections. Small panes of heavy glass are best on the outside and thinner glass on the inside. For obscured glass in housing schemes, the writer uses large Arctic pattern. This has an obscurity which is not obtained with Flemish or Cathedral glass, while it has a good appearance and, unlike fluted and murenese glass, it is easy to clean. It is the rule in ordering glass to give the height first and the width after. This is important for patterned glass. Putty for glazing can be stiffened by the use of 10 per cent. addition of either white-lead or red-lead.

Sundry Materials.

B.S.S. (416-1931) is for cast-iron spigot and socket, waste, ventilating and heavy rainwater pipes. The length of 6 ft. is given as "overall." This is contrary to traditional use, which is for 6 ft. net. The specification standardises the rule for "handing" of bends and junctions, and it is hoped that this will be universally adopted. The hand of a fitting is taken as you look at it when fixed, and with the socket upstream.

One of the newer materials of recent years is the "wallboard." Many classes are marketed; some are hygroscopic to some degree, and expand and contract with the change of humidity of the air. When used for ceilings of new houses, they may contract away from the walls, and draw away the wall plastering with them. Some of them take a plastering coat quite well. They are found to be best used with wood strips forming a panel effect, and covering the joints, and with angle fillets at wall joints.

A wallboard laminated with bitumen is said to be less liable to expansion and contraction in a humid atmosphere than many others. It is not so rigid as others when heated to 50 deg. C. The values of thermal conductivity of all wallboards experimented with in one case were found to be somewhat similar.

Plaster Slabs.

As partitions these are serviceable, light and fireproof. They first came into use instead of the brick-nogged partitions, and they have advantages over those. For ceilings, however, they are not so successful. They are superior to lath and plaster, and for fixing to first-floor joists are serviceable. The trouble comes in fixing them to ceiling joists, which are more liable to be out of shape, and the plaster slab is rather too stiff to "give."

NEW BUILDING SCIENCE

As reflected in the summaries published in the April issue of *Building Science Abstracts*, recent contributions to the literature on building and building materials present many features of interest.

Stone and Clay Ware.

In the sections devoted to stone and clay ware, for instance, reference is made to circulars issued by the U.S. Bureau of Mines containing valuable information regarding the qualities and uses of limestone, onyx marble and travertine (Abstracts Nos. 490-1), while No. 495 summarises work done at the Building Research Station in studying the durability of roofing slates. Another interesting contribution in this section is a summary of a report by Lord Rayleigh on a study of the causes of the noticeable bending frequently seen in cut slabs of marble, such as old mantelpieces. This is shown to be due to the unequal expansion of the calcite content of the stone by heat, and has the effect of reducing the strength of the stone (Abstract No. 492). Abstract No. 497 summarises a discussion of the existing knowledge with regard to the principles governing the drying of clay. No. 500 refers to a new pug mill provided with means for de-aerating clay before the mass reaches the die, and No. 501 to the strength and porosity of stoneware sewer pipes.

Concrete and Cement.

Abstract No. 525 summarises a 20-page discussion of the causes and means of avoiding defects such as cracking and crazing in concrete buildings as the result of temperature and humidity changes. No. 526 contains the gist of conclusions with regard to the proportioning of concrete intended to be placed by means of an electrically-driven pump and the operation of such apparatus. No. 535 refers to a paper describing the production and properties of rapid-hardening and white Portland, Roman, iron-Portland, Portland blast-furnace, pozzolanic and high alumina cements; No. 538 contains the salient features of a method for determining the specfic surface of Portland cement; No. 540 summarises information about the effect of different cooling conditions on the quality of cement clinker, and No. 541 refers to a 228-page Italian manual dealing with the chemistry of Portland cement.

Metals.

In the section dealing with metals, No. 558 refers to a German study of the physics, chemistry and hygienics of copper in water supply systems, while No. 559 briefly summarises a paper issued by the Water Pollution Research Board on the action of water on lead, with special reference to the supply of drinking water. Of interest is an investigation referred to in No. 557, which tells us that investigations carried out by the Australian Division of Forest Products has shown that twisted nails made from square wire are superior to all others in holding power.

Reinforced Concrete.

Abstract No. 609 gives a summary of a study of the pressure exerted by saturated sand against a retaining wall; No. 611 deals with a theoretical and experimental investigation of similar phenomena in dry materials. Abstract No. 612 summarises a discussion of the design of sheet-pile bulk-heads, and No. 613 an investigation of the stresses induced by bending in deep rectangular beams. Abstract No. 616 consists of a lengthy and informative summary of a research on the effects of plastic flow in rigid reinforced concrete frames. An American engineer has carried out a series of tests on different types of anchorages for reinforcing bars. This investigator (Abstract No. 617) comes to the conclusion that in order to obtain the strongest anchorage with the least amount of slip, reinforcing bars should be bent as little as possible, the desired strength being obtained by including a sufficient length of the bars past the points where anchorage is needed. Where the design necessitates that bars should be bent, the radius of bending should be as large as is practicable. A French brochure mentioned in Abstract No. 619, consists of 35 sheets of detailed dimensioned drawings showing various types of reinforcing bars, etc., and their arrangement in typical reinforced concrete elements.

Structural Steel.

Tests carried out by the U.S. Bureau of Standards have shown that very satisfactory strength is developed in the type of steel floor generally known as the "battledeck," which consists essentially of steel I-beams to which flat steel plates are welded along the middle of the upper flanges (Abstract No. 621). Another investigation carried out by the U.S. Bureau of Standards has consisted in a study of the wind pressure on a model of the Empire State Building as affected by the presence of neighbouring buildings (Abstract No. 630). Abstract No. 632 refers to a code for the use of structural steel in building recently issued by the Standards Association of Australia. No. 635 relates to a novel type of timber-concrete beam developed in U.S.A. In this beam, the tension portion consists of vertical laminations built up of wood planks spiked or bolted together with their upper edges alternately stepped to form grooves 2 in. deep, and the compression portion of concrete poured on top of the timber. It appears from tests carried out at the George Washington University that beams of this type show very satisfactory strengths, and that they should be suitable for use in the construction of heavy duty floors and bridge and wharf decks.

Floor Panels.

No. 636 describes a floor panel consisting of sheet of plywood glued to the tops and bottoms of the floor joists. It is said that such floors can be rapidly constructed, are economical, and result in a marked gain of head room, as the upper sheet of plywood, relatively thick, acts as a sub-floor, while the lower, thin sheet serves as a ceiling for the room below. This floor, in fact, consists of a series of box girders, in which the joists act as the webs and spacing members and the plywood forms the flanges and receives the major tensile and compressive stresses. It is said that tests have shown that for the spans customary in house construction, 6 in. joists provide the necessary strength and stiffness.

Heating and Ventilation.

The section of the April issue of *Building Science Abstracts*, which deals with the literature of housing and the efficiency of buildings, merits close attention. Abstracts Nos. 649-52 briefly refer to recent Government and other publications dealing with housing problems generally, No. 655 to a handy manual on the heating and ventilating of buildings, and No. 656 to the annual guide issued by the American Society of Heating and Ventilating Engineers, which contains forty-two chapters of data on the design and specification of heating and ventilating systems and is intended to serve as a comprehensive source of information to the practising engineer. No. 660 contains much information with regard to the uses of aluminium foil in heat insulation. This Abstract is a summary of a paper from an American source, from which it may be gathered that in the U.S.A. aluminium foil is being largely and increasingly used in the heat insulation of buildings. In conclusion, reference should be made to an interesting German publication which describes an extensive investigation of the effects of gas cooking and lighting installations upon the condition of air in kitchens and living-rooms (Abstract No. 666).

STAGE LIGHTING AT COVENT GARDEN

THE reconstruction of the stage lighting at the Opera House, Covent Garden, London, is a matter for congratulation, as the premier opera house of Britain hitherto lacked the magnificent lighting effects that have made Continental productions so spectacular. This has now been remedied by the new and ingenious lighting scheme recently installed by the Strand Electric and Engineering Co., Ltd., whose chief installation engineer, Mr. L. G. Applebee, worked in close collaboration with Mr. Basil Davis, A.M.I.E.E., who designed the scheme. Messrs. Hood and Huggins, and Frank Matcham, were the architects for the structural alterations.

A notable feature of the new stage lighting equipment is the 15,000 square feet of cyclorama, by means of which sky, cloud and distance effects are produced. Some 220 floodlighting projectors housing 1,000-watt lamps are installed for lighting these effects. This lighting has been arranged on a three-colour system, and an extraordinary number of colour combinations are obtainable by this means. The general stage lighting equipment consists of footlights and five specially arranged battens, with spotting, flooding and acting area units intersecting the various sections of each batten. The dimmer bank, which is housed in a special chamber in the lower basement, is an elaborate piece of apparatus arranged in two sections and totalling some 34 ft. long by about 8 ft. 6 in. high. This is governed by a neat form of desk-like control, the dimensions of which are some 5 ft. 6 in. by 2 ft. 9 in. This apparatus, which is really the pulse of the whole system, is situated on one of the "prompt side" perches from which a clear view of the stage can be obtained. Control is by means of three master handwheels and innumerable tiny switches which operate the dimming and lighting systems by means of electro-magnetically coupled and mechanical gear. There are some 130 dimmer controls in addition to automatic colour changing and master switches. The wiring, conduit, etc., for the stage lighting was supplied by the General Electric Co., Ltd., and large numbers of Osram lamps are used in the theatre. The ingeniously designed trickle-charging apparatus for the battery which is part of the remotely controlled switchboard and dimmer bank system is of G.E.C. patented design, while the generator is of Witton design and manufacture.

The total loading of the stage equipment is now of the order of some 850 kw., and this entailed the bringing in of special mains, being nearly 700 kw. in excess of the whole of the previous load of the entire building. The total current previously used for stage lighting is now needed for the arcs alone. The cyclorama, sheet, track and operating bridges were manufactured and installed by the Lift and Engineering Co., Ltd.

St. Margaret's, Sibsey, Lincs.

An appeal has been issued by the Vicar of Sibsey (Lincs) parish church, St. Margaret's, for £5,000 for the restoration of the fabric, parts of which are in grave danger of collapse. The structure dates from 1087 and is in stone. The nave and west tower are in the Norman style. Restoration was carried out between 1854 and 1858. Mr. Leslie T. Moore, F.R.I.B.A., is the honorary architect in charge of the proposed restoration.

Leeds School of Architecture.

Mr. J. S. Allen, Head of Leeds School of Architecture in the College of Art, has been informed that the School's Diploma in Town Planning and Housing has been recognised by the Town Planning Institute for exemption from the final examination of that body. The School has already full recognition from the Royal Institute of British Architects for its five-year full-time course in architecture.

NEW BUILDINGS IN LONDON.

The Editor would be glad to receive information for publication under this heading from architects, builders, or other persons concerned. Items should be received at THE BUILDER Office not later than Wednesday morning.

ACTON.—FACTORY.—Messrs. C. F. Ince and Sons, Ltd., 33, Shoe-lane, E.C.4, are to have a new factory in Western-avenue, W. The plans are by Mr. F. E. Simpkins, Park Royal-road, N.W., and the builders are Messrs. Allnatts, Ltd., of Park Royal-road.

ACTON.—FACTORY.—The contract for the factory in Leonard's-road, for Messrs. G. Beaton and Son, Ltd., Victoria-road, Willesden, N.W., has been placed with Messrs. G. Percy Trentham, Ltd., Long-lane, Hillingdon. The plans are by Messrs. Wallis, Gilbert and Partners, 15, Elizabeth-street, S.W.1.

ACTON.—EXTENSION.—The T.C. are inviting tenders returnable by June 4, for extensions to the public library in the High-street. The plans have been prepared by Mr. W. G. Cross, Borough Engineer.

BERMONDSEY.—EXTENSION.—The B.C. has approved the plans submitted by Mr. J. Thompson, Fort Motor Garages, Fort-road, for extensions to their garages.

BERMONDSEY.—HOUSING.—The B.C. has received sanction to borrow £23,383 for 45 flats and two shops on three sites. The Council has also received the Ministry of Health sanction to 28 flats at Amos estate; 49 flats at Bethel-place; 26 dwellings on the Tanner-street site, and 38 flats at Harold estate extension.

BERMONDSEY. — FLATS. — The B.C. has recommended that the sketch plans for the erection of 113 flats and one shop on the Tower Bridge-road site be approved, and application made to the M.H. for approval. The estimate of the general manager has also been recommended for approval.

BETHNAL GREEN.—WAREHOUSE.—On the site of 17-20, Margaret-place, E., a warehouse is to be erected from the plans of Messrs. Tecton, 57, Haymarket, S.W.1. The building will be erected by Messrs. J. L. Kier and Co., Ltd., reinforced concrete contractors, 36, Victoria-street, S.W.1.

BLACKFRIARS.—ADAPTATIONS.—H.M.O.W. are inviting tenders for adaptations to the branch post office, E.C. The tenders are to be returned by June 4.

BRENTFORD.—CONVENIENCES.—A convenience for men and women is to be erected at Market-place by Brentford and Chiswick T.C. Plans are by Mr. L. A. Cooper, L.R.I.B.A., Borough Engineer and Surveyor, Town Hall, Chiswick, and tenders are now invited (upon deposit of £2 2s.), returnable by June 13.

BROMLEY.—HOUSES.—The T.C. has approved plans by Messrs. H. F. Thoburn, Ltd., estate agents, Kent House Station, Beckenham, for 88 houses in Pickhurst-lane and in proposed new road off Pickhurst-lane.

CHADWELL HEATH. — REBUILDING.—Messrs. Ind, Coope and Co., Ltd., Burton-on-Trent, have accepted the tender of Messrs. Baker, Hammond and Laver, Ltd., New Road Works, Rainham, for the rebuilding of the "Crooked Billet" public-house, Billet-road. The plans are by Mr. J. W. Hammond, 40, High-street, Romford.

CHALK FARM.—FLATS.—The Northern Group of the St. Pancras House Improvement Society, Ltd., 118A, Euston-road, N.W.1, are accepting the designs of Messrs. Connell and Ward, 25, Grosvenor-place, S.W.1, for 20 flats in Ferdinand-street. The work will be tendered for soon.

CHELSEA.—HOUSES.—Messrs. Wills and Kaula, 22, Southampton-street, W.C.1, are the architects and Messrs. J. Gerrard and Sons, Victoria House, Southampton-row, W.C.1, are the builders for houses in Whitehead's-grove and Norman-street, S.W.3.

CHISWICK. — GARAGE. — Messrs. Allen Fairhead & Sons, Ltd., Sydney-road, Enfield, are erecting a garage in Chiswick High-road, W.4, near the junction of the Great West-road.

CHISWICK.—EMBANKMENT PROTECTION.—Brentford and Chiswick T.C. are to commence upon the first section of a river embankment protection scheme between Chiswick Bridge and Barnes Bridge. Plans are by Mr. L. A. Cooper, L.R.I.B.A., Borough Engineer and Surveyor, Town Hall, Chiswick. Tenders (upon deposit of £2 2s.) are now invited and must be returned by June 15.

COVENT GARDEN. — IMPROVEMENTS. — Plans have been passed by the Westminster City Council for improvements to the premises of Messrs. Odhams Press Ltd., Long Acre, W.C.2. Included in the scheme is a bridge over the Wilson-street premises of the company. Plans are by Messrs. Yates, Cook and Darbyshire, 43, Great Marlborough-street, W.1.

CROYDON. — ADDITIONS. — Mr. Bernard W. H. Scott, F.R.I.B.A., 25, Bedford-row, W.C.1, is the architect for additions to form warehouse and office at 468, London-road, for East London Rubber Co., Ltd., 29, Great Eastern-street, E.C.2. The contract has been placed with Messrs. Hudson Bros., Ltd., 207, St. John's-hill, Battersea, S.W.11.

DEVONSHIRE HILL. — LIBRARY. — The Tottenham U.D.C. are proposing to erect a branch library in Crompton-crescent, Devonshire-hill, from plans by the Engineer to the Council. The cost is estimated to be about £9,500.

EALING.—SHOPS.—Ten shops with flats over are to be erected in Horsenden-lane, for Mr. A. E. Laner. The architects are Messrs. North, Robin and Wilsdon, Townsend House, Greycoat-place, S.W.1.

EALING.—FLATS.—The layout for 36 flats and 19 garages in Argyle-road and Clevelandroad, by Messrs. Toms and Partners, architects, 115, Park-street, W.1, for Messrs. Bell Property Trust, Ltd., has been approved by the T.C.

EALING. — BUNGALOW. — The T.C. has approved plans for 24 bungalows in Eastcote-lane, for Messrs. Romford and District Estates, Ltd., 47, Victoria-street, S.W.1.

EALING.—FLATS.—The T.C has approved plans prepared by Messrs. Marshall and Tweedy, 4, Cavendish-place, W.1, for 36 flats in Clifton-road, for Messrs. C. Peppiatt and Son.

EALING.—HOUSES.—Messrs. Swannell and Sly, High-street, Rickmansworth, are the architects for eight houses in Wood End-lane and forty-two, in Mildred-avenue, for the Hillingdon Estate Co.

ELTHAM.—BUILDING.—The L.C.C. has recommended that the site adjoining the "Old King's Arms" public-house, Eltham High-street, be let on building lease to Mr. E. T. Wilsdon.

FULHAM.—POWER STATION EXTENSIONS.—Fulham Corporation now propose the erection of Section Q of the Power Station in Townmead-road. A steel-frame building with approximately 950 rods of brickwork and concrete floors is envisaged. The engineers are Messrs. Preece, Cardew and Rider, 8-10, Queen Anne's-gate, S.W.1. Tenders (upon deposit of £10 10s.) are invited, returnable by July 2.

GREAT PORTLAND-STREET.—OFFICES.—The site of Nos. 90-92 is being cleared for a new block of offices, with showrooms on the ground floor, for which plans have been prepared by Messrs. William A. Lewis and Partners, 11-12, Finsbury-square, E.C.2. The builders will be Messrs. Perry and Perry, 20, Woodstock-street, W.1.

GROSVENOR-ROAD.—FLATS.—Are to be erected on the site of No. 18. The application made to the Westminster City Council by Mr. C. E. Peczenik, of 17, New Cavendish-street, W.1, has been approved.

HAYES.—SCHOOL.—Mr. W. A. Forsyth, F.R.I.B.A., 12, Stratford-place, W.1, has been appointed architect for the proposed four-department school on the Glebe estate. Accommodation for 400 scholars will be provided in the first section.

HIGHGATE.—FLATS.—Messrs. Elgood and Hastie, 10, Henrietta-street, W.1, have prepared plans for 14 flats at 15-17A, North-hill. Tenders will be invited shortly.

ILFORD.—EXTENSION.—The Eastern Carriage and Motor Works, Woodford-road, are to extend their works. Messrs. A. J. Albert, Ltd., 701, Lea Bridge-road, Walthamstow, are carrying out the work to the plans of their own architects.

ISLINGTON. — FLATS. — The B.C. has appointed Mr. E. C. P. Monson, F.R.I.B.A., Finsbury Pavement House, Moorgate, E.C., as architect, and Mr. Frank N. Falkner, 4, York Mansions, Princes-street, W.1, as quantity surveyor for eight flats at 27 and 23, Canonbury Villas.

ISLINGTON.—BUILDING.—The L.C.C. has sold land in the Hope-street (No. 1) area to the trustees of Our Lady of the Sacred Heart Roman Catholic non-provided school.

LUDGATE-CIRCUS. — EXTENSION. — The British Mutual Banking Co., Ltd., Ludgate-circus, E.C.4, have acquired premises at 4, St. Bride-street, as an extension to their head offices.

MARYLEBONE.—CENTRE.—The St. Marylebone Health Society, 14, Salisbury-street, N.W.8, has been offered a site for the rebuilding of the infant welfare centre and day nursery in the Lisson-grove area. Mrs. Davies, of 36, Hamilton-terrace, St. John's Wood, is connected with the scheme.

NORTHOLT.—QUARTERS.—H.M. Air Ministry has placed a contract with Messrs. Humphreys, Ltd., 187, Knightsbridge, S.W.7, for new quarters for officers and airmen.

PARK ROYAL.—FACTORIES.—Park Royal Development Co., Ltd., invite tenders, on behalf of Associated Agricultural Processes, Ltd., for the erection of Factory No. 1 and annexe and Factory No. 2. Brick constructions, with artificial stone dressings, are proposed. Schedules, etc., and form of tender may be obtained from Sir Alexander Gibb & Partners, Queen Anne's Lodge, S.W.1, upon deposit of £10 10s., to whom tenders are returnable by June 11.

PONDERS END.—FACTORIES.—Messrs. Bylock Electric, Ltd., Bylock Hall, South-street, are to build a range of single-story factory premises at the rear of its present works. The plans have been prepared by Mr. E. C. Desch, 3, Pump-court, Fleet-street, E.C.4.

RICHMOND. — CONVENIENCES. — The Borough Engineer, Hotham House, Heron-court, Richmond, Surrey, has prepared plans for the erection of a public convenience (approx. 9,300 ft. cub.) in Petersham Meadow, Richmond. Tenders (upon deposit of £1 1s.) are now invited, returnable by June 11.

RICKMANSWORTH. — HOUSES.—Messrs. G. T. Crouch, Ltd., Epsom-road, South Morden, are to proceed with several detached houses on the Moor Park estate. The plans have been prepared by Messrs. Simmons and Grellier, Palace-chambers, Bridge-street, S.W.1.

ROTHERHITHE. — WAREHOUSE.—The contract for the large warehouse, wharfage, etc., at 10-14, Rotherhithe-street, S.E., for Messrs. A. H. and E. Foster, Ltd., 7, Rotherhithe-street, S.E.6, has been let to Messrs. Killby and Gayford, Ltd., 87, Worship-street, E.C.2. The works will be supervised by Mr. W. H. Ashford, L.R.I.B.A., 37, Norfolk-street, Strand, W.C.

SOUTH EALING.—FLATS.—The contract for 16 flats at the corner of Gumleigh-road and Windmill-road, W., for Mr. F. A. Davies, has been placed with Messrs. Harris and Son, Bath-road, Hounslow. The plans are by Mr. H. A. Steel, 162, Uxbridge-road, West Ealing.

SOUTHALL.—HOSPITAL.—The governors of the new Southall-Norwood District Hospital have accepted the tender of Mr. A. C. Dean, 199, West Wycombe-road, High Wycombe, for a new hospital at The Green. The plans have been prepared by Messrs. Bostock and Hollins, 4, South-road, Southall.

SUDBURY.—FLATS.—Plans have been prepared by Messrs. Waterhouse and Ripley, Staple Inn-buildings, W.C.1, for 52 flats in Harrow-road. Messrs. J. A. Oram and Son, builders, Craneford-way, Twickenham, are the owners of the site.

SURREY COMMERCIAL DOCKS.—SHEDS.—The Port of London Authority have accepted the tender of Messrs. John Mowlem and Co., Ltd., Ebury Bridge-works, S.W.1, for the timber storage sheds at the Canada-yard, Stave Dock and South Dock. The cost will be about £80,000. The plans are by the Board's Chief Engineer, Trinity-square, E.C.3.

TOTTENHAM.—DWELLINGS.—The Engineer to the U.D.C. is preparing plans for 44 dwellings on section No. 2 of the Weir Hall housing estate.

TOTTENHAM.—BUILDINGS.—The U.D.C. has approved the following schemes:—H. S. Stone and Co., extension to factory, Bernard-road; Albion Sewing Cotton Co., Ltd., reinstatement of factory premises, Fawley Mills, Fawley-road; Pearlite Box Co., Ltd., factory, west side of West-road; E. G. Brown, amended plan of 4 factories, west side of West-road; E. R. Taylor, branch post office, Nos. 830-832, High-road; L. Lazarus and Son, Ltd., factory and offices, Queen-street, opposite Lorence-road; Sir Wm. Prescott, factory building, north end and east side of Selby-road; Sir Wm. Prescott, factory building, east side of Selby-road; Commercial Structures, Ltd., factory, site of No. 38, Willoughby-lane; A. J. King, Ltd., new factory, west side, West-road; Commercial Structures, Ltd., amended plan of factory, site of No. 38, Willoughby-lane; A. Godfrey, 3 blocks of flats of 6 tenements on land corner of Boundary-road and Crawley-road; H. Berry, factory, site of Nos. 249-251, West Green-road; Hillyer and Hillyer, alterations and additions, Nos. 272-270, West Green-road.

UPPER NORWOOD.—HOUSES.—Messrs. Hawkins & Co., 353a, Norwood-road, S.E.27, are the builders for 37 houses in Cintra Park, Upper Norwood, S.E.19. Messrs. Dunsmore Bros., Survey House, Brockley -rise, S.E.23, are the architects.

UXBRIDGE-ROAD. — CONVERSION. — Into showrooms and offices of No. 32, for Mr. R. G. Braham, has been sanctioned by the Ealing T.C. The plans are by Messrs. Hall-Jones and Partners, Haven House, Haven Green, W.5.

WALTHAMSTOW. — FACTORY.—A new factory is in course of erection at Higham Hill-road, on behalf of Messrs. Leslies, Ltd., of High-street, Walthamstow. The contractors are Messrs. Commercial Structures, Ltd., 38-44, Canal-road, N.1.

WALWORTH-ROAD. — REBUILDING.—Of the "Red Lion" public-house is proposed by Messrs. Truman, Hanbury, Buxton and Co., Ltd., Brick-lane, E.1. The contract has been let to the Western Construction Co., Ltd., Artillery House, Artillery-row, S.W.1. The architect is Mr. W. G. Ingram, F.R.I.B.A., 4, Verulam-buildings, W.C.1.

WANSTEAD.—ADDITIONS.—Including new classroom block are to be made to the Royal Infants' Orphanage, Epping-road. The builders are Messrs. W. and C. French, Buckhurst Hill.

WATFORD.—SHOPS.—Plans have been prepared for about 30 shops, etc., in Gammons-lane. The architects are Messrs. Fitt and Prior-Hale, 85, Theobald's-road, W.C.1, and the builders are the Richards Building Co., Ltd., 13, Sutton-parade, Church-road, Hendon.

WESTMINSTER. — BUILDING. — The City Council has approved an application by Mr. G. A. Hall for erection of a new building at 41, Greencoat-place.

THE REPEAL OF THE LAND VALUE TAX

THOSE interested in housing will welcome the steps which the Government are taking to repeal those clauses of the Finance Act, 1931, which relate to the Land Value Tax, with the one exception of retaining the provisions which require the registration of instruments dealing with the transfer of land. Quite apart from the disastrous results which followed the introduction of the original measure in 1909-10 (which had more equitable elements than its successor), in checking all building enterprise, and which, taken as a whole, resulted in financial loss, there are many reasons why this measure should not remain upon the Statute Book.

The policy of the National Government is to promote private enterprise in providing houses at low rents for the less wealthy of the working classes, but this measure is a special tax on private enterprise, as the local authorities and other public bodies are exempted from the tax to a large extent, and there can be little doubt, having regard to modern tendencies in encouraging such bodies, that as time went on this tax would have been open to that most serious objection to any form of taxation, as being leviable on a continually narrowing basis. But further than this, as we pointed out in our leading article of May 22, 1931, since the introduction of the original Act other legislation has tended to do away with many of the reasons on which such legislation was founded. The principle of betterment, now of even more widespread application in the Town and Country Planning Act, does away to a great extent with the alleged grievance as to unearned increment, whilst as regards reversion duty, the Landlord and Tenant Act has secured the benefit of improvements to tenants, and under the Land (Assessment of Compensation) Act, in addition to the many provisions contained in the Housing Acts, it can no longer be said that land is withheld from public use by reason of extortionate demands, and, in fact, as regards clearance areas there is now an outcry that private rights are being too far invaded. The new provisions in the Finance Act, 1931, were dealt with by us in a series of articles at the time that they were introduced, and there is no occasion now to dwell on their many defects, and, in our opinion, injustices, but so long as they remain on the Statute Book they must have a depressing influence on private housing enterprise, and the introduction of a new form of taxation without the assurance of any compensating relief, to a nation already overtaxed, must have a deterrent effect on industrial enterprise as a whole.

Slums and Overcrowding.

Grave doubts as to the result of the Government's slum-clearance policy were expressed by Dr. Wm. Frazer (M.O.H. for Liverpool) in a lecture before Liverpool University. "In spite of the remarkable efforts made in many of the larger urban areas of this country to revolutionise the conditions under which such a distressingly large proportion of their populations exist, the net result," said Dr. Frazer, "has proved a disappointment alike to the Government and to local authorities. Overcrowding has only been diminished to a slight extent, and the menace of the slums has hardly been attacked at all. A meagre result, surely, for so much effort and such large expenditure. I venture to assert that until a simultaneous attack is launched on the evils of overcrowding and the slum we shall not have dealt truly and faithfully with a problem which has been acute in this country for more than a hundred years."

Dr. Frazer said the policy of leaving the building of houses to abate overcrowding to the private builder, unaided by subsidy, appeared to have failed already. In any case, the builder was reluctant to lock up capital for a long period and to undertake the responsibility of collecting rents and managing property. That was not his function.

NEW CINEMAS

ANSTRUTHER.—Plans for a new picture house have been prepared by Messrs. Cowieson, Ltd., Charles-street, St. Rollox, Glasgow, who will also carry out the work.

BEDFORD.—Messrs. Benslyn & Morrison, 17, Easy-row, Birmingham, have submitted plans to the Corporation for the erection of a cinema in St. Peter's-street.

BIRMINGHAM.—Mr. Sydney H. Wigham, architect, 703, Washwood Heath-road, Ward End, is preparing plans for a new cinema at the corner of High-street and Halesowen-street, Blackheath, for proprietors of King's Theatre, Blackheath.

BLANDFORD.—Plans submitted by Mr. P. J. Carter, Palace Cinema, Blandford, providing for the erection of a new cinema in East-street, have been approved by Dorset County Council.

BOSTON.—Mr. A. Howden, managing director of Boston Scala Theatre, Ltd., proposes to erect a super-cinema in West-street, to seat about 1,500 persons. An architect is not yet appointed.

CORBY.—In connection with the proposal of Messrs. Stewarts & Lloyds, Ltd., Winchester House, E.C.2, to erect a cinema at Corby, we are informed that neither the architect nor the contractor for the erection of the building has yet been selected. The proposal is still in the negotiation stage.

FINCHLEY.—Messrs. J. Stanley Beard & Bennett, 101, Baker-street, W.1, have prepared plans for the erection of a cinema to be called the "Dominion," for Dominion (North Finchley), Ltd.

FOLKESTONE.—As stated in our issue for April 27, the contract for the building of the Astoria cinema, to be erected on the site of 22, 24 and 26, Sandgate-road and in Oxford-terrace, Sandgate, has been secured by Mr. O. Marx, of Folkestone. Plans have been prepared by Messrs. E. A. Stone & Partners, 20, Berkeley-street, W.1.

GLASGOW.—The West End Playhouse, St. George's-road, is to be reconstructed and refurnished, for which a contract has been placed with the Cinema Construction Co., 154, West Regent-street, Glasgow. The redecoration will be by Messrs. W. Douglas & Sons, 242, West George-street, Glasgow.

HAWICK.—The Cinema Construction Co., 154, West Regent-street, Glasgow, have secured a contract for reconstructing the Pavilion Theatre, to seat 1,600, for Scott's Theatres, Ltd.

INVERURIE.—Plans have been prepared for the new Victoria Cinema at West High- and Victoria-streets by Mr. T. Scott Sutherland, architect, 10, Albyn-place, Aberdeen. The main building has been placed with Messrs. G. Duncan & Sons, builders, St. James-place, Inverurie.

LIVERPOOL.—The Watch Committee have approved alterations to the David Lewis Theatre, Great George-place. The architect is Mr. G. de C. Fraser, F.R.I.B.A., 27, Dale-street.

SOUTHEND-ON-SEA. — Messrs. E. A. Stone & Partners, 20, Berkeley-street, W.1, are preparing plans for the erection of a cinema and shops on part of the Luker Brewery Site. To be known as the "Astoria," the cinema will seat nearly 3,000. No contract has yet been let.

TROWBRIDGE.—Messrs. H. Andrews & Sons, the Picture House, Corsham, Wilts, propose a cinema at Bythesea-road, Trowbridge. Plans have been prepared by Mr. W. Snailum, A.R.I.B.A., Church-street, Trowbridge, and the building contract is with Mr. H. Isley, Bythesea-road, Trowbridge.

WIDNES.—The cinema known as the "Bozzadrome" is to be rebuilt as the "Regal." Seating capacity will be increased by 450 to 1,100. Plans are being prepared by Messrs. Drury & Gomersall, Imperial Buildings, Oxford-road, Manchester.

WOMBWELL.—The U.D.C. have approved plans for a cinema to be erected at High-street. The architect is Mr. F. Ratcliffe, A.R.I.B.A., Orchard Chambers, Church-street, Sheffield.

RATES OF WAGES IN THE BUILDING TRADE

AS AND FROM 1st FEBRUARY, 1934.

[Every endeavour is made to ensure accuracy, but we cannot be responsible for errors.]

	Crafts-men.	Lab-ourers		Crafts-men.	Lab-ourers.		Crafts-men.	Lab-ourers.		Crafts-men.	Lab-ourers.
Aberdare	1/5	1/0½	Clitheroe	1/5½	1/1½	Isle of Thanet	1/3	11½	Sawbridgeworth	1/3½	11½
Abergavenny	1/5	1/0½	Cobham	1/4	1/-	Isle of Wight	1/2	10½	Saxmundham	1/1½	10½
Aberystwyth	1/2	10½	Colchester	1/4	1/-	Keighley	1/5½	1/1½	Scarborough	1/5	1/0½
Accrington	1/5½	1/1½	Colwyn Bay	1/4½	1/0½	Kenilworth	1/5½	1/1½	Selby	1/5½	1/1½
Aldeburgh	1/1½	10½	Congleton	1/5	1/0½	Kettering	1/4½	1/0½	Sevenoaks	1/3½	11½
Aldershot	1/2½	11	Coventry	1/5½	1/1½	Kidderminster	1/4½	1/0½	Sheerness	1/3	11½
Alfreton	1/5½	1/1½	Cranbrook	1/2	10½	King's Lynn	1/3	11½	Sheffield	1/5½	1/1½
Alnwick	1/4½	1/0½	Cranleigh	1/2½	11	Kirkham	1/5½	1/1½	Shipley	1/5½	1/1½
Altrincham	1/5½	1/1½	Crawley	1/3	11½	Knowle	1/5	1/0½	Shoeburyness	1/4½	1/0½
Amble	1/4½	1/0½	Crewe	1/4½	1/0½	Lancaster	1/5½	1/1½	Shoreham	1/4	1/-
Amersham	1/3½	11½	Cromer	1/2½	11	Leamington	1/5	1/0½	Shrewsbury	1/4½	1/0½
Ammanford	1/5½	1/1½	Crowborough	1/3	11½	Leatherhead	1/4	1/-	Sittingbourne	1/2½	11
Andover	1/2½	11	Cuckfield	1/3	11½	Leeds	1/5½	1/1½	Skegness	1/4½	1/0½
Arundel	1/2½	11	Darlington	1/5½	1/1½	Leicester	1/5½	1/1½	Sleaford	1/4	1/-
Ascot	1/3½	11½	Darwen	1/5½	1/1½	Leighton Buzzard	1/2	10½	Slough	1/4½	1/0½
Ashby-de-la-Zouch	1/4	1/-	Daventry	1/4	1/-	Letchworth	1/3½	11½	Southampton	1/4½	1/0½
Ashford (Kent)	1/2½	11	Deal	1/3	11½	Lewes	1/2	10½	Southend-on-Sea	1/4½	1/0½
Ashford (Middx.)	1/4	1/-	Denbigh	1/4	1/-	Lichfield	1/4½	1/0½	Southport	1/5½	1/1½
Ashington	1/4½	1/0½	Derby	1/5½	1/1½	Lincoln	1/5½	1/1½	South Shields	1/5½	1/1½
Ashtead	1/4	1/-	Devizes	1/2*	10½	Littlehampton	1/3	11½	Spalding	1/3	11½
Ashton-under-Lyne	1/5½	1/1½	Dewsbury	1/5½	1/1½	Liverpool	1/7‡	1/2½	Stafford	1/5	1/0½
Aylesbury	1/2½	11	Didcot	1/3½	11½	Llandudno	1/4½	1/0½	Staines	1/4	1/-
Aylsham	1/2	10½	Diss	1/2	10½	Llanelly	1/5½	1/1½	Stamford	1/4	1/-
Bagshot	1/2½	11	Doncaster	1/5½	1/1½	London—			Stevenage	1/3½	11½
Banbury	1/3	11½	Dorchester	1/2½*	11	12 m. radius	1/7*	1/2½	Stockport	1/5½	1/1½
Barnsley	1/5½	1/1½	Dorking	1/3	11½	12-15 m. radius	1/6½*	1/2	Stockton-on-Tees	1/5½	1/1½
Barnstaple	1/3½	11½	Dover	1/3	11½	Long Eaton	1/5½	1/1½	Stoke-on-Trent	1/5½	1/1½
Barrow-in-Furness	1/5½	1/1½	Dovercourt	1/3½	11½	Longton	1/5½	1/1½	Stourbridge	1/5	1/0½
Barry	1/5½	1/1½	Driffield	1/4	1/-	Loughborough	1/5½	1/1½	Stourport	1/4½	1/0½
Basingstoke	1/3	11½	Droitwich	1/4½	1/0½	Louth	1/4	1/-	Stowmarket	1/2	10½
Bath	1/4½	1/0½	Dudley	1/5½	1/1½	Lowestoft	1/3	11½	Stratford-on-Avon	1/4	1/-
Batley	1/5½	1/1½	Dunstable	1/2	10½	Luton	1/4	1/-	Stroud	1/3½†	11½
Beaconsfield	1/3½	11½	Durham	1/5½	1/1½	Macclesfield	1/5	1/0½	Sunderland	1/5½	1/1½
Beccles	1/2	10½	Eastbourne	1/4	1/-	Maidenhead	1/4	1/-	Sutton Coldfield	1/5½	1/1½
Bedford	1/4½	1/0½	E. Glam. (Mon. Val.)	1/5	1/0½	Maidstone	1/3½	11½	Swaffham	1/1½	10½
Berkhamsted	1/3	11½	East Grinstead	1/3	11½	Malvern	1/4	1/-	Swanage	1/3½*	11½
Berwick	1/4½	1/0½	Edenbridge	1/3	11½	Manchester	1/5½	1/1½	Swansea	1/5½	1/1½
Beverley	1/5½	1/1½	Ely	1/2	10½	Manningtree	1/2	10½	Swindon	1/4*	1/-
Bexhill	1/3	11½	Epping	1/4½	1/0½	Mansfield	1/5½	1/1½	Tamworth	1/5	1/0½
Bideford	1/3½	11½	Exeter	1/4½†	1/0½	March	1/2	10½	Taunton	1/3½	11½
Biggleswade	1/3	11½	Exmouth	1/3½	11½	Margate	1/3	11½	Tenterden	1/2½	11
Billericay	1/2	10½	Fakenham	1/2	10½	Market Harborough	1/4½	1/0½	Tewkesbury	1/4*	1/-
Birchington	1/3	11½	Falmouth	1/3½	11½	Matlock	1/4	1/-	Thetford	1/2	10½
Birkenhead	1/7‡	1/2½	Fareham	1/3	11½	Melton Constable	1/1½	10½	Thorpe Bay	1/4½	1/0½
Birmingham	1/5½	1/1½	Faversham	1/2½	11	Melton Mowbray	1/4½	1/0½	Todmorden	1/5½	1/1½
Bishop Auckland	1/5	1/0½	Felixstowe	1/4	1/-	Merthyr Tydfil	1/5	1/0½	Tonbridge	1/3½	11½
Bishops Stortford	1/3	11½	Filey	1/4	1/-	Middlesbrough	1/5½	1/1½	Torquay	1/5	1/0½
Blackburn	1/5½	1/1½	Fleetwood	1/5½	1/1½	Middleton	1/5½	1/1½	Totnes	1/3½†	11½
Blackpool	1/5½	1/1½	Flint	1/5	1/0½	Middlewich	1/4½	1/0½	Trowbridge	1/2½*	11
Blyth	1/5½	1/1½	Folkestone	1/3	11½	Milford Haven	1/3½	11½	Truro	1/2½	11
Bognor Regis	1/3	11½	Frinton-on-Sea	1/3½	11½	Morecambe	1/5½	1/1½	Tunbridge Wells	1/3½	11½
Bolton	1/5½	1/1½	Frome	1/2½*	11	Morley	1/5½	1/1½	Uppingham	1/4	1/-
Bournemouth	1/4	1/-	Gainsborough	1/4½	1/0½	Mundesley	1/2	10½	Uttoxeter	1/3½	11½
Bracknell	1/3	11½	Gateshead	1/5½	1/1½	Nantwich	1/4½	1/0½	Wakefield	1/5½	1/1½
Bradford	1/5½	1/1½	Gillingham	1/3½	11½	Newark	1/4½	1/0½	Walsall	1/5½	1/1½
Bradford-on-Avon	1/2½*	11	Glossop	1/5	1/1½	Newbury	1/2½	11	Walsden	1/5½	1/1½
Braintree	1/3½	11½	Gloucester	1/4½†	1/0½	Newcastle-on-Tyne	1/5½	1/1½	Walton-on-Naze	1/3½	11½
Brentwood	1/5	1/0½	Godalming	1/3½	11½	Newcastle-u-Lyme	1/5½	1/1½	Ware	1/4½	1/0½
Bridgwater	1/3	11½	Goole	1/4½	1/0½	New Forest	1/2½	11	Warminster	1/2½*	11
Bridlington	1/5	1/0½	Gosport	1/4½	1/0½	Newmarket	1/3	11½	Warrington	1/5½	1/1½
Brighouse	1/5½	1/1½	Grantham	1/4	1/-	Newport, Mon.	1/5½	1/1½	Warwick	1/5	1/0½
Brighton	1/4	1/-	Gravesend	1/5	1/0½	Newport Pagnell	1/2½	11	Wellingborough	1/4½	1/0½
Bristol	1/5½	1/1½	Gt. Yarmouth	1/3	11½	Northampton	1/5½	1/1½	Wells (Norfolk)	1/1½	10½
Broadstairs	1/3	11½	Grimsby	1/5½	1/1½	Norwich	1/5	1/0½	Welwyn	1/3	11½
Bromsgrove	1/4½	1/0½	Guildford	1/3½	11½	Nottingham	1/5½	1/1½	Welwyn Gar. City	1/5½	1/1½
Bromyard	1/2	10½	Guilsborough	1/4	1/-	Nuneaton	1/5½	1/1½	West Bromwich	1/5½	1/1½
Buckley	1/5½	1/1½	Halifax	1/5½	1/1½	Oakham	1/4	1/-	Westcliff-on-Sea	1/4½	1/0½
Bungay	1/1½	10½	Hanley	1/5½	1/1½	Oldham	1/5½	1/1½	Weston-super-Mare	1/4½	1/0½
Burnham-on-Crouch	1/2	10½	Harpenden	1/3	11½	Ormskirk	1/5½	1/1½	Weybridge	1/4	1/-
Burnley	1/5½	1/1½	Harrogate	1/5½	1/1½	Oxford	1/4½	1/0½	Weymouth	1/3*	11½
Burslem	1/5½	1/1½	Hartlepools	1/5½	1/1½	Oxted	1/2½	11	Whitby	1/4½	1/0½
Burton-on-Trent	1/5½	1/1½	Harwich	1/3½	11½	Paignton	1/4½	1-0½	Whitstable	1/3	11½
Bury	1/5½	1/1½	Haslemere	1/2½	11	Peterborough	1/4½	1/0½	Widnes	1/5½	1/1½
Bury St. Edmunds	1/2½	11	Hastings	1/3	11½	Plymouth	1/5½†	1/1½	Wigan	1/5½	1/1½
Buxton	1/5	1/0½	Hatfield	1/4½	1/0½	Pontypridd	1/5	1/0½	Wigton	1/4	1/-
Byfleet	1/3	11½	Haywards Heath	1/3	11½	Portsmouth	1/4½	1/0½	Wellington	1/5	1/0½
Cambridge	1/5	1/0½	Hednesford	1/5	1/0½	Port Talbot	1/5½	1/1½	Wilmslow	1/5½	1/1½
Canterbury	1/3	11½	Hemel Hempstead	1/4	1/0	Preston	1/5½	1/1½	Winchester	1/3½	11½
Cardiff	1/5½	1/1½	Henley	1/3½	11½	Pulborough	1/2	10½	Windermere	1/3½	11½
Carlisle	1/5½	1/1½	Hereford	1/3½*	11½	Ramsgate	1/3	11½	Windsor	1/4½	1/0½
Carnforth	1/5½	1/1½	Herne Bay	1/3	11½	Reading	1/4½	1/0½	Wisbech	1/2	10½
Castleford	1/5½	1/1½	Hertford	1/4½	1/0½	Redcar	1/5½	1/1½	Witham	1/3½	11½
Caterham	1/4	1/-	Heysham	1/5½	1/1½	Redditch	1/4½	1/0½	Woking	1/3½	11½
Chard	1/2*	10½	Hitchin	1/3½	11½	Redhill	1/3½	11½	Wokingham	1/3½	11½
Chatham	1/3½	11½	Hoddesdon	1/4½	1/0½	Reigate	1/3½	11½	Wolverhampton	1/5½	1/1½
Chelmsford	1/4	1/-	Holt	1/1½	10½	Retford	1/4	1/-	Woodbridge	1/2	10½
Cheltenham	1/4	1/-	Horley	1/3	11½	Ripon	1/4	1/-	Worcester	1/4½	1/0½
Chepstow	1/4½	1/0½	Horsham	1/2½	11	Rochdale	1/5½	1/1½	Workington	1/4	1/-
Chertsey	1/4	1/-	Horwich	1/5½	1/1½	Rochester	1/3½	11½	Worksop	1/4	1/-
Chester	1/5½	1/1½	Huddersfield	1/5½	1/1½	Rugby	1/5½	1/1½	Worthing	1/3	11½
Chesterfield	1/5½	1/1½	Hull	1/5½	1/1½	Saffron Walden	1/2	10½	Wrexham	1/5	1/0½
Chichester	1/3	11½	Hunstanton	1/2	10½	St. Albans	1/5	1/0½	Wroxham	1/2½	11
Chorley	1/5½	1/1½	Huntington	1/2½	11	St. Helens	1/5½	1/1½	Wycombe	1/4	1/-
Cirencester	1/3*	11½	Ilfracombe	1/3½	11½	St. Neots	1/2½	11	Wymondham	1/1½	10½
Clacton	1/3½	11½	Ingatestone	1/3	11½	Salisbury	1/2½*	11	Yeovil	1/3*	11½
Cleveleys	1/5½	1/1½	Ipswich	1/4½	1/0½	Salisbury Plain	1/2½*	11	York	1/5½	1/1½

* Painters, 1d. less than other Craftsmen. † Painters, ½d. less than other Craftsmen. ‡ Plasterers 1s. 8d.

For Building Trade Wages in Scotland, see page 916.

CONTRACTS OPEN

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender that a fair wages clause shall be observed, that no allowance will be made for tenders; and that deposit, are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given is the latest date when the tender, or the names of those willing to submit tenders, may be sent in, the name and address at the end is the person from whom or place where quantities, forms of tender, etc., may be obtained.

Following is a list of abbreviations:—Borough Surveyor, B.S.; Borough Engineer, B.E.; District Surveyor, D.S.. Town Clerk, T.C.; County Engineer, C.E.; County Surveyor, C.S.· Surveyor S.; Engineer, E.

BUILDING, PAINTING, ELECTRIC LIGHTING, HEATING, etc.

MAY 28.

Abingdon.—Houses.—94, on Drayton-rd. estate, for T.C. B.S., The Abbey House. Dep. £2 2s.

Birkenhead.—Demolition.—Of brick and stone chimney stack, at Flaybrick Hill Waterworks, for T.C. Water E., 601, Borough-rd.

Blackpool.—Heating.—Of extension at Highfield School, for T.C. B.S.

Crediton.—Erection.—Of school and alterations to existing buildings at Queen Elizabeth's grammar school, for Devon C.C. County Architect, 97, Heavitree-rd., Exeter. Dep. £1 1s.

Cupar.—Installation.—Of electric light and power to houses and farm steading at Springfield Farm, for Fife District Asylum. Medical Superintendent, Fife District Asylum.

Edinburgh.—Dermatology.—And special pavilion; also alterations to west entrance gates, at Royal Infirmary. Henry Maw, secretary and treasurer.

Edinburgh.—Painting.—Thomas Burns Home for Blind Women, Alfred-place, for Royal Blind Asylum and School. J. L. Hill, Dougal & Co., 18, Hill-st., Edinburgh.

Finchley.—Decorations.—At schools, for T.C. P. T. Harrison, B.E., 9, The Hawthorns, Regent's Park-rd., Finchley, N.3. Dep. £1 1s.

Halesowen.—Houses.—30, at Nawne-lane, for U.D.C. G. Spurr, S. Dep. £2 2s.

Hemsworth.—Mining Centre.—For West Riding C.C. Education Officer, County Hall, Wakefield.

Huyton-with-Roby. — Houses. — 34, on Huyton Quarry estate, for U.D.C. S. Dep. £2 2s.

Isle of Wight.—Alterations.—To Havenstreet Council schoolhouse, for E.C. S. R. Cocks, S., St. Thomas-st., Ryde.

Islington.—Repairing.—And painting exterior of 10 greenhouses, furnace shaft, 2 pits, 36 frame lights, also repairs and decorations at superintendent's house, gardeners' lodge and lodge at Irish Corner in Islington Cemetery, East Finchley, N.2, for B.C. T.C. Superintendent, Islington Cemetery.

Kingston-upon-Hull.—Alterations.—To offices, Alfred Gelder-st. and 2, Dock Office-row, for T.C. D. Harvey, A.R.I.B.A., City Architect, Dep. £1 1s.

Liverpool.—Internal Painting.—At certain elementary schools, for T.C. Land Steward and Surveyor, Dep. £1 1s.

London. — Repainting. — Westminster Bridge, for L.C.C. Chief Engineer (B.), County Hall, S.E.1. Dep. £1.

Morley.—Installation.—Of electric lighting at cemetery registrar's house in Bruntcliffe-lane, for T.C. F. Turner, B.E. and S.

Morley.—Redecoration.—Of rooms, etc., in Town Hall, for General Purposes Committee. F. Turner, B.E. and S.

Oxted.—Cottages.—12 non-parlour type at Millane, for R.D.C. of Godstone. Stanley Easter, surveyor, Lloyds Bank-chambs., Station-rd. West. Oxted. Dep. £2 2s.

Penzance.—Houses.—72, on Penalverne housing site, also construction of roads, sewers and water supply mains, for T.C. E. W. J. Nicholson, T.C. Dep. £5 5s.

Port Talbot.—Houses.—Eight four-bedroom type and 16 three-bedroom type houses at Cwmavon, and roads and sewers, for T.C. B.E. Dep. £2 2s. each.

Portsmouth.—Erection.—Of boiler-house block, etc., at City Mental Hospital. E. H. Harvey, architect, 110, Commercial-rd. Dep. £3 3s.

Portsmouth.—Rewiring.—Of wards at St. Mary's Hospital, Milton, for T.C. City E. Dep. £1 1s.

Preston. — Painting. — Administration block, scarlet fever and diphtheria wards of hospital in Fulwood Hall-lane, Fulwood, for Preston, Fulwood and Longridge Joint Hospital. M. Lutener, Clerk to Committee.

Scarborough.—Houses.—58 parlour and 52 non-parlour, on the Prospect Mount Estate, for T.C. J. Paton Watson, B. and Water E.. Dep. £2 2s.

Stratford-upon-Avon.—Erection.—Of steel-framed buildings and purifiers, for T.C. F. Shewring, engineer and manager, Gas Works, Birmingham-rd.

Sutton-in-Ashfield.—Fencing.—For U.D.C. Walter Burn, S.

Tonbridge.—Painting.—Of 177 houses in various parts of district, for R.D.C. Frank Harris, E. and S. Dep. £1 1s.

Wakefield.—Alterations.—To Town Hall, for T.C. L. Ives, City S.

West Ham.—Repairs.—And painting of interiors of 8 schools in district. Also repairs and painting of exterior Fyfield Residential Open-air School, near Ongar, Essex, for C.B. J. H. Jacques, architect, 61, West Ham-lane, E.15. Dep. £1.

MAY 29.

Ashby Woulds.—Houses.—48 non-parlour type, for U.D.C. McCarthy, Collings & Co., architects, Central-chambrs., Coalville. Dep. £3 3s.

Bootle.—Construction.—Erection and completion of structural alterations at Central police station, Oriel-rd., for Corporation. B.E. Dep. £1.

Carlisle. — Garage. — Erection of, at Carlisle Post Office and Telephone Exchange, for H.M.O.W. Room 65D, Third Floor, H.M. Office of Works, S.W.1. Dep. £1.

Darlington.—Alterations.—And additions to casual wards and heating system at institution, Yarm-rd., for T.C. Ernest Minors, B.S. Dep. £1 1s.

Dunfermline.—Houses.—26, at Robertson-rd., Bellyeoman, for T.C. D. H. Shaw, B.E. Dep. £1 1s.

Edinburgh.—Demolition.—Of buildings at 43-47, East Crosscauseway, for T.C. City E.

Godstone.—Redecorations.—Of 94 Council houses, for R.D.C. Stanley Easter, S. Dep. £1 1s.

Hebburn.—Painting.—Methodist, Roman Catholic infants, and St. Oswald's mixed and infants' schools, for E.C. S.

Lytham St. Annes.—Classrooms.—At Queen Mary school, Fairhaven, for Governors of the Lytham Schools Foundation. Francis L. Lumb, F.R.I.B.A., 19, Clifton-st., Blackpool. Dep. £2 2s.

Minety.—Reconstruction.—Of three cottages in Moor, for Council. E. E. Taylor, clerk, Minety, Wilts.

Musselburgh.—Houses.—20, at Inveresk-rd. site, for T.C. J. Logan, B.S.

Preston.—Offices.—For T.C. W. Platt, B.E. and S. Dep. £2 2s.

Salford.—Painting.—And decorating, at Weaste and Northern cemeteries, for T.C. City E.

MAY 30.

Birkenhead.—Repairs.—To property, for C.B. E. W. Tame, T.C.

Blyth.—Houses.—52, in Crawford-st. and rear of Hodgson's-rd., for T.C. L. Leeper, B.E. Dep. £5 5s.

Eccles. — Erection. — Of employment exchange, for H.M.O.W. Room 65D, Third Floor, H.M. Office of Works, London, S.W.1. Dep. £1.

Huddersfield. — Houses. — 124, on Cross-lane housing site, Newsome, for T.C. B.E. Dep. £1 1s.

Liverpool.—Houses.—38, adjoining School-lane, Woolton, for T.C. Director of Housing, Dale-st. Dep. £1 1s.

Liverpool.—Houses.—237, on Finch House Estate, for Corporation. Walter Moon, T.C. Dep. £1 1s.

Liverpool.—Houses.—241, on Finch House Estate, for Corporation. Walter Moon, T.C. Dep. £1 1s.

Liverpool.—Houses.—259, on Finch House Estate, for Corporation. Walter Moon, T.C. Dep. £1 1s.

Magheraveltt.—School.—Public elementary school at Ampertaine, Upperlands, for Regional E.C. R. T. M'Guckin, architect, Garden-st. Dep. £1.

Newbury.—Redecorating.—14 class- and 4 staff-rooms at senior Council school, Station-rd., for E.C. B.S.

Salford.—Painting.—And decorating at Weaste and Northern cemeteries, for T.C. City E.

Southampton. — Villas. — Two new villas and alterations to existing mansion at Tatchbury Mount Colony, near Totton, for Hampshire Joint Mental Health Institution's Committee. J. M. Sheppard & Partners, 38, Bedford-place, London, W.C.1. Dep. £5 5s.

MAY 31.

Armagh.—Painting and Repairs.—To 7 schools, for County E.C. Secretary, Education Committee, Court House, Armagh.

Bedworth.—Office.—And ambulance station, for U.D.C. H. W. Crowther-Green, E. and S. Dep. £1 1s.

Camberley.—Houses.—26, at Barossa, for Frimley and Camberley U.D.C. R. H. Porteous, E. and S. Dep. £2 2s.

Capheaton.—Painting.—Institute. James Lawson, Barn Hill, Capheaton.

Cheltenham.—Out Houses.—368 brick-built, in connection with houses at St. Peter's and St. Paul's, for T.C. G. Gould Marsland, B. and Water E. Dep. £1 1s.

Dartford.—Sub-station.—At rear of public library, for T.C. B.S.

Exeter. — Extensions. — Of station sorting office garage, for H.M.O.W. Room 65D, Third Floor, H.M. Office of Works, London, S.W.1. Dep. £1.

Herne Bay. — Post Office. — Erection of, for H.M.O.W. Room 65D, Third Floor, H.M. Office of Works, S.W.1. Dep. £1.

Keal Cotes. — Renovation. — Of Keal Cotes Methodist Chapel. H. M. Thornley, Keal Cotes.

Mexborough.—Erection.—Of brick wall, at Garden-st. council school, for West Riding C.C. W. H. Jones, Divisional Clerk, Mexborough.

Orpington.—Painting.—External, of 173 houses, in various parts of district, for U.D.C. R. A. Pope, Building Surveyor.

Ramsgate.—Houses.—20, at Dumpton, for T.C. B.E., 16, Albion-pl.

Rochdale.—Installation.—Electric lighting and power installations to 212 houses on Brimrod estate, for C.B. B.S.

Southend-on-Sea.—Cleaning.—And painting, at various schools, for T.C. F. W. Smith, A.R.I.B.A., Municipal-bldgs. Dep. £1.

Warrington.—Painting.—At Cottage Homes and Public Assistance Offices, for T.C. B.S.

York.—Flats.—176 houses and 44 flats on Huntington-rd. estate, for T.C. F. W. Spurr, City E. Dep. £2 2s.

JUNE 1.

Anglesey.—Painting.—Of various schools, for C.C. Clerk of Works, Education Offices, Llangefni.

Carrickfergus.—Houses.—2 houses. John Moore, A.M.I.C.E.I., architect, High-st

Castleford.—Painting.—And decorating at Grammar School. C. T. Lightley, clerk, 77, Carlton-st.

Colne.—Trades.—In connection with 94 non-parlour type houses and 20 bungalows on Cooke House estate (scheme No. 11), for T.C. B.E.

***Dorset.**—Erection.—Of new block and alterations to grammar school, Weymouth, for C.C. J. Leslie Torr, Dorchester. Dep. £2 2s.

Edinburgh.—Painting.—Painter work in Newington House, Blacket-av., for Scottish National Institution for Blinded Sailors and Soldiers. J. L. Hill, Dougal & Co., 18, Hill-st., Edinburgh.

***Feltham.**—Erection.—Of telephone exchange and garage, for H.M.O.W. Room 65D, Third Floor, H.M. Office of Works, London, S.W.1. Dep. £1.

Kyle of Lochalsh.—Alterations.—And additions at post office, for H.M.O.W. Architect, H.M. Office of Works, 122, George-st., Edinburgh. Dep. £1 1s.

Mayo.—Cottages.—60, for Board of Health and Public Assistance. P. J. Cannon, Secretary, Secretary's Office, Castlebar.

Skegness.—Additions.—And alterations to school, for Lindsey C.C. P. W. Birkett, A.R.I.B.A., Lincoln. Dep. £2 2s.

Slough. — Erection. — Of timber-framed pavilion, for U.D.C. Alan Bromly, E. and S., William-st.

***West Ham.**—Installation.—Of hot water apparatus at Hermit-rd. school, for E.C. John H. Jacques, architect, 61, West Ham-lane, E.15. Dep. £1.

JUNE 2.

Brownswood.—Extensions.—And alterations to sanatorium, at Grioman Charmain, for Wexford Board of Health and Public Assistance. A. Edward Smith, F.S.I., Quantity S., 19, Upper Merrion-st., Dublin. Dep. £5 5s.

Depwade.—Painting.—External, to 150 houses, for R.D.C. F. H. Bowden, Long Stratton, Norwich.

Durham.—Houses.—35, and roads and sewers at Ludworth, for R.D.C. Housing Architect. Dep. £1 1s.

Halifax.—Extensions.—To boiler house at Gibbet-st. institution, for T.C. D. T. Lloyd Jones, B.E., Crossley-st. Dep. £1 1s.

Hensol Castle, nr. Pontyclun.—Erection.—Of two low-grade blocks and laundry, for Glamorgan C.C. Henry Rowland, clerk, Glamorgan County Hall, Cardiff.

Hollingbourn.—Houses.—6 and 12 cottages, for R.D.C. C. W. Page, Council's Building Surveyor, Council Offices, 33, Earl-st., Maidstone. Dep. £1 1s.

Mallow.—Hospital.—New County hospital, for North Cork County Board of Public Assistance. D. C. Murphy, Secretary, Mallow. Dep. £20.

South Charnwood.—School.—For Leicestershire C.C. Architect, County Education Office, Grey Friars, Leicester. Dep. £2 2s.

Southampton.—Repairs.—And renovations, both external and internal, to 85, High-st. and Castle Cottage, Porter's-lane, for C.B. Housing Manager's Office, 4, Albion-ter.

Tranent.—Houses.—52, for T.C. Morham & Brotchie, surveyors, 29, Hanover-st., Edinburgh.

Wallingford.—Dwellings.—11, at Goldsmith's-lane, for T.C. Francis R. Hedges, T.C. Dep. £1 1s.

JUNE 4.

Acton.—Extensions.—To public library, High-st., W.3, for T.C. W. G. Cross, B.E. Dep. £1.

***Barrow-in-Furness.**—Alterations.—To old post office, for H.M.O.W. Room 65D, Third Floor, H.M. Office of Works, London, S.W.1. Dep. £1.

Brierley Hill.—Houses.—8, also drains, fencing and footpaths, at Addison-rd., for U.D.C. R. H. J. Comber, S. Dep. £2 2s.

Doncaster.—Shelters.—At Westfield Park and Hexthorpe Flatts, for T.C. R. E. Ford, Estates Surveyor.

Dublin.—Flat.—At Chancery-pl., for T.C. City Treasurer, Exchange-bldgs., Lord Edward-st. Dep. £5 5s.

***Ealing.**—Erection.—Of Wood End and Horsenden schools, for B.C. W. R. Hicks, B.E. Dep. £6 6s.

***London, S.E.1.**—Adaptations.—To Blackfriars Branch Post Office, for H.M.O.W. Room 65D, Third Floor, H.M. Office of Works, S.W.1. Dep. £1.

Royton.—Houses.—69, on Hall-st. site, for U.D.C. Surveyor's Office, Royton. Dep. £2 2s.

Scotland.—Maintenance Works.—For H.M.O.W. Secretary, H.M. Office of Works, 122, George-st., Edinburgh.

Sunbury-on-Thames.—Houses.—38 on land in Green-lane, for U.D.C. A. J. Buttress, Acting Surveyor. Dep. £2 2s.

Twickenham.—Painting.—Internal, at public library, Garfield-rd., for T.C. Gilbert R. King, B.E. and S.

Windsor.—Houses.—66, on Church Farm estate, for T.C. F. N. McRae, B.E., 16, Alma-rd. Dep. £1 1s.

JUNE 5.

Acton.—Installation.—Of low pressure hot water heating system at 99, York-rd., W.3, for T.C. W. G. Cross, B.E.

Ardsley.—Houses.—24, on Blackgates housing estate, for U.D.C. F. Arthur Brown, S. Dep. £1 1s.

Donabate, Co. Dublin.—Overhaul.—Of electrical installation at Portrane Mental Hospital. J. P. Tierney & Co., consulting engineers, 44, Kildare-st., Dublin. Dep. £5 5s.

Donabate, Co. Dublin.—Overhaul.—Of hot water installation at Portrane Mental Hospital. J. P. Tierney & Co., consulting engineers, 44, Kildare-st., Dublin. Dep. £5 5s.

Donegal.—Cottages.—338 labourers' cottages and fencing the plots attached thereto throughout Donegal County Health District, for Board of Health. W. J. Doherty, M.R.I.A.I., 12, Castle-st., Derry, or C. V. McLaughlin, A.I.A.A., Letterkenny.

Isle of Ely.—Decoration.—And/or repairs at various schools in county, for C.C. R. D. Robson, County Architect, March.

Isle of Wight.—Buildings.—Erection of a house and farm buildings, and alteration of existing buildings at the Glebe Farm, Calbourne, for C.C.

A. J. A. Harris, M.I.M.C.E., County Hall, Newport, I.W.

Loughborough.—Improvements.—At cattle market (in two contracts), for T.C. W. Granger, A.M.Inst.C.E., Borough Surveyor, Town Hall. Dep. £1 1s. (each contract).

Penge.—Various Works.—At Melvin, Oakfield and Anerley schools, for U.D.C. Col. H. W. Longdin, S., Town Hall, Anerley, S.E.20.

Romford. — Additional Floor. — Erection of, to "C" block at Institution, for Essex C.C. J. Stuart, County Architect. Chelmsford. Dep. £2 2s.

***Rugby.**—Erection.—Of telephone exchange, for H.M.O.W. Room 65D, Third Floor, H.M. Office of Works, London, S.W.1. Dep. £1.

JUNE 6.

Bolton.—Installations.—Electrical, to 26 houses on Hall i' th' Wood estate, for C.B. Housing Director, Westminster Bank-chambr., Old Hall-st. North.

Colwyn Bay.—Erection.—Of boundary walls and railings and gates enclosing part of Mochdre recreation ground, for U.D.C. W. J. Dunning, E. and S.

Durham.—Houses.—100, sewers, concrete roads and incidental work in connection therewith, at Sherburn-rd., New Durham, for T.C. John W. Green. City E. and S. Dep. £5 5s.

Hyde.—Pavilion.—And lavatories on schools playing field, Walker-lane, for E.C. B.S.

Ilford.—Heating.—Engineering work in connection with remodelling of heating, hot-water supplies, etc., at Isolation Hospital, for T.C. J. Roger Preston, consulting engineer, 10, Talbot Mansions, Museum-st., W.C.1. Dep. £3.

Shrule, Co. Mayo.—School.—For Commissioners of Public Works. T. Cassedy, Office of Public Works, Dublin. Dep. £1.

JUNE 7.

Down.—Improvements.—To Grangee P.E. school; Trinity (Bangor) P.E. school; Bangor Central P.E. school, and Newtownards Technical school, for County E.C. Castor J. Love, architect, 5, Wellington-place, Belfast.

Leitrim.—Schools.—4, in various parts of county, for E.C. P. J. Bready, architect, County Hall, Carrick-on-Shannon.

Llanelly.—Houses.—48 non-parlour type, on Bigyn site, for T.C. B.S.

Strabane.—Houses.—28, for U.D.C. Vincent H. Murnaghan, Town S.

Walthamstow. — Interior. — And exterior renovation, limewhiting, etc., to various schools, for B.C. T. S. Cunningham, B.E. and S., E.17.

JUNE 8.

Acton.—Erection.—Of messroom, store and timber shed at Acton Cemetery, Park Royal, N.W.10, for T.C. W. G. Cross, B.E. Dep. £1 1s.

Brighouse.—Painting.—Secondary school for girls. J. S. Hird, Clerk to Governors.

***Essex.**—Erection.—House for Clerk and 11 pairs of staff cottages at Brentwood Mental Hospital, for C.C. J. Stuart, County Architect, Chelmsford. Dep. £2 2s.

JUNE 9.

Brighouse.—Decoration.—Of St. Andrew's infants' school, Lightcliffe-rd., and Longroyde school, Longroyde-rd., for T.C. Director of Education, Education Offices.

Builth Wells.—Houses.—8, off Tanhouse-rd., for U.D.C. Henry Waters, architect and surveyor, Beaufort. Dep. £3 3s.

Guildford.—Decorations.—Repairs, etc., to schools, for T.C. B.S.

Thurnscoe.—Alterations.—To offices at infants' dept., Council school, for West Riding C.C. W. H. Jones, Divisional Clerk, Education Offices, Mexborough.

JUNE 11.

Chesterfield.—Painting.—And decorating internally and externally of various schools, for T.C. Wilcockson & Cutts, architects, 12, Saltergate. Dep. £5 5s.

***Hammersmith.**—Demolition.—Of buildings in Bridge-st. and Lower Mall, for B.C. B.E. and S.

Kingston-upon-Thames.—Room.—Additional small class-room to Grammar School, London-rd., for T.C. B.S. Dep. £1 1s.

***Park Royal.**—Factories.—Nos. 1 and 2 in connection with contract No. 9, for the Park Royal Development Co., Ltd. Sir A. Gibbs, engineers, Queen Anne's Lodge, S.W.1. Dep. £10 10s.

***Richmond (Surrey).**—Erection.—Of public convenience in Petersham Meadow, for T.C. B.E., Hotham House, Heron Court. Dep. £1.

***West Sussex.**—Erection.—Of mixed school at Lancing, for C.C. Cecil G. Stillman, architect, North-st., Chichester. Dep. £2 2s.

JUNE 12.

***Southend-on-Sea.**—Alterations.—And additions to Public Assistance Offices, for C.B. Robert H. Dyer, B.E. Dep. £2.

Walthamstow.—Renovating.—Various schools and limewhiting, etc., to out-offices, also removal of galleries, for E.C. T. S. Cunningham, B.E. and S.

JUNE 13.

***Brentford.**—Erection.—Of convenience at Market Place, for Brentford and Chiswick B.C. L. A. Cooper, B.E. and S., Chiswick. Dep. £2 2s.

***Connah's Quay.**—Dwellings.—20, at Golftyn, for U.D.C. S. H. Garratt, architect. Dep. £2 2s.

***Deptford.**—Erection.—Of forecourt walling, piers, gates and railings to 371-373, Queen's-rd., for B.C. B.E. and S., Deptford Town Hall.

Leeds.—Redecoration.—Of Victoria Hall in Town Hall, for T.C. Fred Broadbent, F.R.I.B.A., Executive Officer.

JUNE 14.

***Chingford.**—Repairs.—And decorations to about 130 Council houses, for U.D.C. S. J. Hellier, E. and S. Dep. £1 1s.

West Suffolk.—Painting.—And small repairs at various secondary schools, for E.C. J. Creese, County Architect, 56, Westgate-st., Bury St. Edmunds.

JUNE 15.

***Hertfordshire.**—New School Building.—At Watford Victoria Boys' C.C. School, for C.C. A. E. Prescott, County S. and Architect, Hatfield. Dep. £2 2s.

***Letchworth.**—Erection.—Of public offices and public conveniences in Broadway, for U.D.C. Bennett & Bidwell, architects, 1, Leys-av. Dep £3 3s.

Wood Green.—Extension.—Of tipping floor, refuse destructor, at Western-rd., for T.C. R. H. Matthews, B.E. Dep. £1 1s.

JUNE 16.

Queensbury.—Adaptations.—Of premises for provision of practical instruction rooms at upper Council school, for West Riding C.C. Education Officer. County Hall, Wakefield.

JUNE 18.

Tewkesbury.—Housing Scheme.—12 houses at the Priors Park site, for T.C. Walter Ridler, A.M.I.C.E., Borough Surveyor, Station-st., Tewkesbury. Dep. £2 2s.

JUNE 19.

***Sundridge.**—Engine House.—For Metropolitan Water Board. Chief Engineer's Dept. (Room 201), 173 Rosebery Av., E.C.1. Dep. £10.

JUNE 20.

***Reigate.**—Erection.—100 houses on Golesmead estate, Redhill, for B.C. Geo. G. Sanderson, B.E. and S. Dep. £2 2s.

Saffron Walden.—Heating.—Of Town Hall, for T.C. A. H. Forbes, B.E., 3, Hill-st.

JUNE 25.

Acton. — Repairs. — To heating installation at various schools, for E.C. B.E., Municipal Offices. Dep. £1 1s.

Acton. — Cleaning, Painting, etc. — To various schools, for E.C. B.E., Municipal Offices. Dep. £1 1s.

JULY 2.

***Fulham.**—Buildings.—And internal furnishings in connection with extensions of Council's power station in Townmead-rd., for B.C. Borough Treasurer. Dep. £10 10s.

NO DATE.

***Gloucester.**—Erection.—Of infants' school, for E.C. H. J. Larcombe. Dep. £2 2s.

Leeds.—Decorating.—Of club and dance hall, for New Wortley Liberal Club. Secretary, Skilbeck st., Wellington-rd.

West Riding.—Painting.—And renovations at schools, for C.C. W. H. Jones, Divisional Clerk, Education Offices, Mexborough.

MATERIALS, etc.

MAY 28.

Farnborough.—Tarred Slag.—For U.D.C. H. F. Yeomans, Acting E. and S.

MAY 31.

Aldridge.—Road Materials.—For U.D.C. H. S. Onions, E. and S.

JUNE 6.

Padiham.—Housing Materials.—For U.D.C. S.

JUNE 7.

Leeds.—Granite Setts.—3,000 tons of granite setts and 2,000 yds. super of concrete flags, for T.C. E. W. Cockerlyne, Highways Engineer, 155, Kirkstall-rd., Leeds, 4.

ENGINEERING, IRON AND STEEL.

MAY 28.

Alnwick.—Reservoir.—Covered reservoir of reinforced concrete at Shilbottle Woodhouse, for R.D.C. R. Rothwell, clerk, 28, Bondgate Within.

Cannock.—Sewer.—367 lin. yds. of 21-in., 18-in. and 15-in. dia. lapwelded steel pipe foul water sewer across fields, etc., at East Cannock, and other works, for U.D.C. Robert Blanchard, E. and S. Dep. £2.

Reigate.—Drainage.—Contract No. 4, for T.C. G. B. Kershaw & Kaufman, chartered civil engineers, 9, Victoria-st., S.W.1. Dep. £10.

MAY 29.

Cheshire.—Widening.—Of Otterspool Bridge carrying Romiley-Marple-rd. over River Goyt, for C.C. Geo. E. Ashforth, C.S., The Castle, Chester. Dep. £10 10s.

Heddesdon. — Extensions. — To sewage disposal works, for U.D.C. D. Balfour & Sons, civil engineers, 47, Victoria-st., Westminster, S.W.1. Dep. £3.

JUNE 1.

Brixham.—Water Supply.—Reservoir in mass concrete, with reinforced concrete roof; and the covering of existing Laywell reservoir in reinforced concrete; and for certain subsidiary works, for U.D.C. R. Hansford Worth, consulting engineer, 42, George-st., Plymouth. Dep. £2 2s.

JUNE 4.

Birmingham.—Lifts.—Installation of 3 electric lifts at Central Fire Station, Corporation-st., for T.C. Herbert H. Humphries, City E. and S. Dep. £2.

Molney Hill.—Extension.—To disposal works, for Rochester and Chatham Joint Sewerage Board. W. H. Radford & Son, chartered civil engineers, Albion-chambs., King-st., Nottingham. Dep. £5 5s.

JUNE 5.

Tendring.—Sewage Disposal Works.—At St. Osyth, for R.D.C. F. G. Vincent-Brown, M.Inst.M. and Cy.E., Surveyor to the Tendring R.D.C., Dovercourt. Dep. £1 1s.

JUNE 13.

***Chiswick.**—Protection Scheme.—For river embankment, between Chiswick bridge and Barnes bridge, for B.C. L. A. Cooper, B.E. and S. Dep. £2 2s.

JUNE 18.

Middlesex.—Sewage.—For West Middlesex Sewage Disposal, Perry Oak Works, Contract No. P.2, for C.C. Dodd & Watson, engineers, 3, Central-bldgs., Westminster, S.W.1.

JUNE 19.

Liverpool.—Engineering Work.—At two new public baths in city, for T.C. Baths Manager, 75, Dale-st. Dep. £2 2s.

ROAD, SEWERAGE AND WATER WORKS.

MAY 28.

Beddington and Wallington. — Making-up. — At Wandle Court-gdns., Beddington, for U.D.C. S. F. R. Carter, E. and S. Dep. £1 1s.

Chingford.—Making-up.—Larkshall-rd., for U.D.C. S. J. Hellier, E. and S. Dep. £2 2s.

Finchley.—Construction.—Of concrete road and sewers at housing scheme No. 6, for B.C. Percival T. Harrison, M.Inst.C.E., B.E. and S., 9, The Hawthorns, Regent's Park-rd., N.3. Dep. £5.

Finchley.—Road Improvements.—To Summerslane, between Upway and Woodhouse-rd., for B.C. Percival T. Harrison, M.Inst.C.E., B.E. and S., 9, The Hawthorns, Regent's Park-rd., N.3. Dep. £5.

Hendon.—Making-up.—Of Wildwood-rd. (second part), Colin-cres., Colin-gdns., Crossway, for T.C. A. O. Knight, B.E. and S. Dep. £4.

Ilford.—Making-up.—And paving of various roads in district, for T.C. B.E. and S. Dep. £2 2s.

Kilmarnock.—Carriageway.—And footpaths in connection with finishing of roads at Longpark rehousing (No. 3) scheme, for T.C. William Dunbar, B.S.

London.—Paving.—Maydwell-st., Millais-st. and Holmby-st., for Camberwell B.C. William Bell, B.E. and S.

The Maldens and Coombe.—Making-up.—Of Clarence-av. (part), for U.D.C. E. and S. Dep. £2 2s.

Manchester.—Sewering.—Draining, paving and flagging of various roads, for T.C. District Surveyor, Town Hall. Dep. £1 1s.

Margate.—Main.—With hydrants and fittings, to Council houses at Bekesbourne, near Aerodrome, for T.C. E. A. Borg, B.E. and S., 40, Grosvenor-pl.

Royton.—Roads.—And sewer work at Hall-st. housing site, for U.D.C. L. Cookson, A.M.Inst. C.E., E. and S. Dep. £2 2s.

Southgate.—Drainage.—Of Cockfosters area, for T.C. R. Phillips, S. Dep. £5.

Spalding.—Mains.—16,065 yds. of 3-in. and 635 yds. of 2-in. dia. cast-iron water mains, together with air valves, sluice valves and hydrants, in parishes of Quadring, Gosberton, Surfleet and Weston, for R.D.C. Silcock & Simpson, engineers, 25, Victoria-st., Westminster, S.W.1. Dep. £5.

Stafford.—Reconstruction.—Of Gaolgate-st. and Greengate-st., for T.C. W. Plant, M.Inst.C.E., B.E. Dep. £2 2s.

Urmston.—Making-up.—8 highways, for U.D.C. E. L. Leeming, E. and S. Dep. £2 2s.

MAY 29.

Birmingham.—Construction.—Of road, for H. & R. (Developments), Ltd. A. L. Vaughan, surveyor, Shakespeare Manor Estate, Stratford-rd., Shirley, Birmingham. Dep. £2 2s.

Great Ouseburn.—Sewerage, etc.—In parishes of Boroughbridge and Aldborough, for R.D.C. Silcock & Simpson, engineers, 10, Park-row, Leeds, 1. Dep. £5.

Kingston.—Mains.—For By-pass, for M.W.B. G. F. Stringer, clerk, 173, Rosebery-av., E.C.1. Dep. £10.

Longbenton. — Roads, etc.—On Palmersville housing site, for U.D.C. W. Bean, S. Dep. £1 1s.

Wigan.—Reconstruction.—Of sewers, Goose Green, Pemberton, for C.B. W. Albert Walker, B.E. Dep. £3 3s.

MAY 30.

Ealing.—Reconstruction.—Of soil sewer at Bayham-rd. and Connaught-passage, West Ealing, and 12-in. soil sewer in Perivale-lane, for T.C. W. R. Hicks, M.Inst.C.E., F.S.I., B.E.

Kingston-upon-Hull. — Repaving. — Of various streets, for T.C. Herbert Hamer, City E. Dep. £2.

Nant Conway.—Laying.—Of 600 lin. yds. of 9-in. concrete pipe sewers with manholes, for R.D.C. J. Porter, clerk, Council Offices, Conway. Dep. £2 2s.

Sunderland.—Making-up.—Helen-st. from Atkinson-rd. to Browne-rd., for C.B. B.E. Dep. £2 2s.

MAY 31.

Lambeth.—Making-up.—And paving of Ivymount-rd., for B.C. Osmond Cattlin, M.Inst.C.E., F.S.I., B.E. Dep. £1 1s.

Richmond (Surrey).—Pipes.—Laying of approximately 400 yds. of open-jointed stoneware collecting pipes for Ham Well, for T.C. H. P. Williamson, Water Engineer and Manager. Dep. £2.

JUNE 1.

Sittingbourne.—Resurfacing.—Part of London-Dover-rd. and Bell-rd., for U.D.C. A. W. Callaway, S.

JUNE 2.

Brimington.—Extension.—To cemetery, for P.C. L. Senior, Public Assistance Offices, Chesterfield.

East Sussex.—Surface Dressing.—Roads in county, for C.C. H. E. Lunn, C.S., Lewes.

Harrow. — Making-up.—Of Flambard-rd. and Lodge-av., for U.D.C. P. G. May, S. Dep. £1 1s.

Harrow.—Making-up.—Of Carlyon-av., section 1, Somervell-rd., section 1, Balmoral-rd., section 1, for U.D.C. J. P. Bennetts, S. Dep. £1 1s.

JUNE 4.

Grimsby.—Repairs.—To school playgrounds, for C.B. J. W. Sharp, secretary, Education Offices, Grimsby.

Grimsby.—Making-up.—Of Cartmel-grove, for C.B. H. Gilbert Whyatt, B.E. and S. Dep. £1 1s.

Windsor. — Construction. —Of roads and sewers on Church Farm housing estate, for T.C. F. N. McRae, B.E., 16, Alma-rd. Dep. £1 1s.

JUNE 5.

Lleyn.—Water Supply.—For Aberdaron, for R.D.C. Stanley L. Richards, chartered civil engineer, 5, Dumfries-place, Cardiff. Dep. £2 2s.

JUNE 6.

Chingford.—Making-up.—Of St. Johns-rd., and also for completion of Middleton-av. (from No. 7 to 96a), for U.D.C. S. J. Hellier, E. and S. Dep. £2 2s.

Esher.—Road.—Improvement works at Esher-rd., East Molesey, between Orchard-lane and River Ember, for U.D.C. F. Edwards, clerk. Dep. £3 3s.

Jarrow.—Asphalting.—Laying approximately 4,950 sup. yds. of two-coat asphalt, reconstruction of high-st. and Church Bank, for T.C. J. Scott Weir, B.E.

Mitcham.—Construction.—Of Church-pl. in concrete, for U.D.C. S.

Swansea.—Paving.—44,000 sq. yds. of asphalt paving on carriageways and footways, for C.B. J. Richard Heath, B.E. and S.

JUNE 7.

Kilkeel.—Main.—Extension of Annalong water main to Ballymartin and extension of Kilkeel water main to Massforth and Derryogue, for R.D.C. J. J. Bell, Clerk of Council.

London.—Paving.—Portion of Merriman-rd. (part II), which extends eastwards from Weyman-rd., for Greenwich B.C. B.E. and S.

London.—Widening, etc.—Kensington High-st. from Holland-walk 60 yds. east of Phillimore-gdns., for Kensington B.C. B.E. and S.

Luton.—Making-up.—Of Blundell-rd., for T.C. J. W. Tomlinson, B.E. and S. Dep. £2 2s.

Southend-on-Sea.—Making-up.—Of Park-lane, section 2, Riviera-drive, section 2, and Southchurch Hall-close, for C.B. Robert H. Dyer, B.E. and S., Municipal-bldgs., Clarence-rd. Dep. £1 1s. (each street).

JUNE 8.

Chingford.—Private Street.—Making-up of St. John's-rd. and also for completion of Alpha-rd. (from No. 43 eastwards to No. 113) and Manor-way, for U.D.C. S. J. Hellier, M.Inst.M. and Cy.E., E. and S., Town Hall, Chingford, E.4. Dep. £2 2s.

East Ham.—Repairing.—Tar paving of playgrounds at various schools, for C.B. B.E. Dep. 10s.

Esher.—Making-up.—Hillcrest-gardens, sections 1 and 2, Hinchley-drive and Hinchley-close, for U.D.C. S. Dep. £3 3s.

London (Hammersmith).—Widening.—Of Hammersmith-rd., for B.C. R. Hampton Clucas, B.E. and S.

Royton.—Making-up.—Of street off Blackshaw-lane, etc., for U.D.C. L. Cookson, A.M.Inst.C.E., Town Hall, Royton. Dep. £2 2s.

JUNE 9.

Kiveton Park.—Extension of Water Works.—Contract No. 1 for the laying of iron pipe water mains at Todwick and Wales, embracing about 2,800 yds. of 10-in. pipes, etc., and Contract No. 2, the supply and free delivery at site of works of spun iron concrete lined pipes and special castings, etc., in connection with the above, for R.D.C. Elliott & Brown, chartered civil engineers, Burton-bldgs., Parliament-st., Nottingham. Dep. £3 3s.

Slough.—Drainage.—Surface water drainage scheme, for Gradwells estate and Stoke Poges-lane, for U.D.C. S.

JUNE 11.

Kempston.—Making-up.—Of Silverdale and Stuart-sts., for U.D.C. S. Dep. £1 1s.

JUNE 13.

Birmingham.—Sewerage.—Of Bristol-rd. South, Tessall-lane and Steel-rd. areas, Northfield, for T.C. Herbert H. Humphries, M.Inst.C.E., C.E. and S., Council House, Birmingham. Dep. £2.

NO DATE.

Kirkburton.—Tarpainting.—Approximately 13,000 super yds. of district roads, for U.D.C. F. Hobson, S.

Public Appointments.

MAY 28.

Shoreditch.—Road Foreman.—For B.C. B.S., Old Street, E.C.1.

MAY 30.

***Doncaster.**—Clerk of Works.—For R.D.C. Roy Bowers, Clerk.

***Garston, nr. Watford.**—Assistant.—In the Enquiry Bureau and Building Research Station, Secretary, Dept. of Scientific and Industrial Research, 16, Old Queen-st., London, S.W.1.

MAY 31.

***Huddersfield.**—Architectural Assistant (Temporary).—For C.B. W. Jaggar, B.E. and S.

JUNE 1.

Acton.—Architectural Assistant (temporary).—For T.C. John Morgan, T.C.

JUNE 2.

***Staffordshire.**—Clerk of Works.—For Staffordshire Mental Hospital Board. H. L. Underwood, County-bldgs.

JUNE 4.

East Ham.—Chief Architectural Assistant.—For C.B. B.E., Town Hall, E.6.

***Manchester.**—Architectural Assistant.—For Corporation. F. E. Warbreck Howell. T.C., Housing Dept.

***Walthamstow.**—Clerk of Works (temporary).—For T.C. Francis G. Garner, T.C.

JUNE 5.

***Southampton.**—Architectural Assistant (Temporary).—For C.B. S. G. Stanton, B.E. and S.

CURRENT & PROPOSED BUILDING WORK*

Abbreviations: T.C. for Town Council; U.D.C. for Urban District Council; R.D.C. for Rural District Council; E.C. for Education Committee; B.C. for Borough Council; P.C. for Parish Council; M.H. for Ministry of Health; M.T. for Ministry of Transport; C.B. for County Borough; B. of E. for Board of Education; M.W.B. for Metropolitan Water Board; Borough Surveyor, B.S.; Borough Engineer, B.E.; District Surveyor, D.S.; Clerk, C.; Town Clerk, T.C.; County Engineer, C.E.; County Surveyor, C.S.; Surveyor, S.; Engineer, E.

Aythe.—U.D.C. approved:—Alterations to "Duke's Head" inn for Mackeson & Co., Ltd.; reconstruction of Midland Bank, 47, High-st., for company.

Basingstoke.—T.C. approved 6 type "A" houses and 18 type "B" houses.

Bedford.—T.C. approved:—A. E. Craig & Co., Ltd., for City and Borough Housing Corporation, Ltd., 100 houses, Elstow-rd. building estate; E. H. C. Inskip & Son, for J. A. Howard, factory, Kathie-rd.

Blackpool.—Council resolved that application be made to M.H. for sanction to borrowing £48,087 for new technical college, and £10,716 for reconstruction of West-st. and Church-st. conveniences.—Branch library and reading room proposed on site of present temporary branch reading room in Highfield-rd. and adjoining land.—Highway Improvement Sub-Committee to acquire land and buildings in order to develop the market site, and Acting B.S. submitted plans of lay-out.—C.B. propose sub-station, corner of Waterloo-rd. and Bath.—In connection with provision of public lavatories in various parts of borough and depôt accommodation at Rigby-rd., Acting B.S. is to prepare plans and estimates.—Council resolved to apply to M.H. for sanction to borrowing £7,259 for reconstruction of Church-st. conveniences and £3,457 for reconstruction of West-st. conveniences.—Branch library, with provision for education and health clinics, proposed on triangular plot of land at junction of Bispham-rd. with Devonshire-rd., Bispham, at £7,000 (excluding land).—Council approved application of J. B. Leigh for petroleum filling station in Stanley-rd.—Site of proposed new indoor bath on Pembroke estate approved. Application to be made to M.H. for sanction of M.H. to borrowing by Corporation of £105,000 for purpose.—Council to purchase site for transformer house in Bath-st.—Borough Electrical Engineer been authorised to purchase sites for transformer houses in Cropper-rd., Marton; Back Cornwall-av., Fleetwood-rd., Norcross, Cartleton; and Back Johnson-rd., Marton.

Bradford.—Truman, Hanbury, Buxton & Co., Ltd., brewers, Derby-st., Burton-on-Trent, propose rebuilding "Oddfellows Arms" hotel, Eccleshill. Architects, Watkin & Maddox, F. & A.R.I.B.A., National Provincial Bank-bldgs., Burslem.

Bredbury and Romiley.—W. G. West, builder, 4, Wellington-rd. South, Stockport, proposes to develop land at Romiley for 300 houses.

Bridgnorth.—Plans approved for library adjoining municipal offices.

Bromley.—T.C. approved:—H. J. Lambert, sports pavilion, Rangefield-rd.

Bury.—Bury and District Co-operative Society, Ltd., propose emporium in Market-st. Plans by C.W.S. Architects' Dept., Balloon-st., Manchester.

Cannock.—U.D.C. approved scheme submitted by A. J. Pace, Belt-rd., Hednesford, for 150 houses.

Carlisle.—Scottish Dept. of State Management Districts propose refreshment house and tea room at Gretna Eastriggs. Cost £3,000. Plans by H. Redfern, F.R.I.B.A., architect, King's-bldgs., Dean Stanley-st., London, S.W.1.—T.C. approved plans for 4 classrooms, etc., Spring-lane, Norton, for Carlisle grammar school. H. R. Ayris, architect, 68, Lowther-st.—Binns, Son & Co., Ltd., English-st., propose overhead double-deck bridge over New Bank-lane.

Chesterfield.—Chesterfield Masonic Hall, Ltd., (J. E. Bird, secretary, 57, Saltergate), proposes buildings, Rose Hill estate. Appointment of architect not yet made.

Connisborough.—West Riding E.C. propose extensions to Middle school at £9,600. County Architect, H. Wormald, A.R.I.B.A., County Hall, Wakefield.

Cottingham.—F. Bilton, 87, Wincolmlee, Hull, proposes 60 houses, Friary-rd. Cost about £19,000.

Doncaster.—Currie & Co. (Newcastle), Ltd., Cambridge Hall, Northumberland-st., Newcastle, propose stores at Bennethorpe. Architects, W. & T. R. Milburn, 17, Fawcett-st., Sunderland.

Droylsden.—A. Bottomley, builder, 34, Lakeside-av., Great Lever, Bolton, propose to develop land at Greenside-lane for 140 houses and shopping centre.

Dudley.—Holt Brewery Co., Ltd., 76, Holt-st., Aston Cross, Birmingham, propose rebuilding "Fox and Grapes" p.-h., Church-st., Pensnett. Plans by Resident Architect.

Dukinfield.—F. Wetton, builder, "The Gables," 41, Arygle-st., Blackpool, propose 80 houses on Park-rd., Sandy-lane and Tower-st. Tame Valley. Architects, Johnson, Son & Lowe, 23, King-st., Wigan.

Ealing.—T.C. approved:—64, 66 and 68, The Broadway, Ruislip-rd., 3 shops (revised drainage), for Warwick Estates, architect, E. R. Taylor, 5, Manchester-sq., W.1; 4 Bilton-rd., Thornville-ter., house and garage, Dr. A. H. Brockbank, architects, Swannell & Sly, High-st., Ricksmansworth; 15 and 17, Studland-rd., 2 houses, A. E. Boot, architects, Sanders & Sanders, 21, Cuckoo-dene, W.7; St. Anne's-gdns., 1-23 odd, 12 houses, Twyford-av., 4 houses, North Circular-rd., 4 houses, R. Lancaster & Sons, 30, Ealing-rd., Wembley; 21 and 23, Sandringham-rd., 2 houses, Mr. Balaam, architect, J. V. Henry, 7, Grove-crescent, South Woodford, E.18; Ealing-rd. Northolt (Northolt Park Racecourse), additional lavatory accommodation to grand stand for Northolt Park, Ltd., builders, Pope & Sander, 10, The Arches, Sherwood-rd., South Harrow; 10, Evelyn-grove, alterations and additions, P. Dawson, architect, S. H. West, 40, The Broadway, W.5; club house, Perivale-lane, additions for Ealing Golf Club, Ltd., architect, J. A. Emes, "Dacre House," 5, Arundell-st. W.C.2; Chalfont-way sub-station at rear of No. 2, for T.C.; Cleveland-rd., sub-station at rear of "Edmonscote," for T.C.; 18, North Common-rd., conversion into flats and 2 garages, for N. Harding, architect, S. H. West, 40, The Broadway, W.5; Ealing-rd., Northolt, conversion into flats, for Northolt Park, Ltd., architects, Naylor & Roberts, 19, Hanover-sq., W.1; Ealing-rd., Northolt Park Racecourse, alterations to grand stand and additional w.c. to directors' stand, for Northolt Park, Ltd., architects, Naylor & Roberts, 19, Hanover-sq., W.1; 21, Richmond-rd., conversion into flats for the Primrose Property Corporation, Ltd., architect, H. Paul, 64, Clovelly-rd., W.5; 122, The Broadway, W.13, additions, for W. Farrant, architects Hall-Jones & Partners, Haven House, W.5; Olive-rd., sub-station, rear of "The Woodlands," for T.C.; 3, The Broadway, W.7, alterations, for the Metropolitan Electric Supply Co., Ltd. (Construction Dept.), Windmill-lane, Southall.

Falmouth.—T.C. approved:—Store and additions to bakehouse at Berkeley-hill for Co-operative Society, and shop premises with store in Penwerris-lane for Williams & Son.

Gateshead.—R. Deuchar, Ltd., Sandyford-rd., Newcastle, proposing additions to "Crown Hotel," Durham-rd., Low Fell, Gateshead. Contracts let.

Gateshead.—Tenders to be invited by T.C. for conversion of Palm House at Whinney hospital into a recreation room, etc., at £700. Plans by F. H. Patterson, B.E.

Guisborough.—U.D.C. approved lay-out plans for 26 houses in Hedley-st. to be built by W. Oliver, builder.

Hebburn-on-Tyne.—G. R. Smith, 63, King-st., South Shields, prepared lay-out plan for 46 houses adjoining Victoria-rd. West.

Kettering.—Gotch & Saunders, High-st., architects for Methodist church hall and Sunday school in Windmill-st., for Rev. W. J. Ashton and Building Committee of Methodist Union. Cost £4,000.

Kirkham.—U.D.C. propose to acquire land in Station-rd. and Barnfields for 32 houses.

Knutsford.—Ollerton Park Estates, Ltd., South King-st., Manchester, propose development of Ollerton Park estate on main Knutsford-Chelford-rd. on garden city lines. Plans by Foden, Hemm & Williams, architects, Prudential-bldgs., 36, Dale-st., Liverpool. Plans for 216 detached brick villas, with garages. Contracts not let.

Leeds.—L. Rakusen & Co. to erect factory and shops fronting Roseville-rd. Tenders invited.—Important steps to be taken in development of first housing estate to be laid out under Corporation £12,000,000 programme. Tenders to be invited for 796 houses and flats, and J. A. Bent to be architectural assistant in the Leeds Housing Dept.

Leicester.—Leicestershire C.C. propose buildings in Priory-lane at £28,000. County Architect, W. Keary, F.R.I.B.A., 6, Mill-stone-lane.

Leicestershire.—E.C. approved plans for dining hall and staff room as extensions to Castle Doning-

*See also List of Contracts open.

**** In these lists every care is taken to ensure that information given is accurate and up to date, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced.**

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ton central school.—Premises in Enderby to be adopted as practical instruction centre at £605. Primary school at Coalville, cost £13,394.—E.C. propose alterations to Ashby-de-la-Zouch girls' grammar school.—A primary school to be erected at Kegworth.—Market Harborough modern school to be erected at £16,540 and primary school and extensions to the central school premises for Church Langton School Governors.

Leigh.—T.C. propose 9 flats for firemen at £4,500.

Liverpool.—Governors of Liverpool College propose chapel at Mossley Hill. Architects, J. R. Leathart & W. F. Granger, FF.R.I.B.A., 7, John-st., Adelphi, London, W.C.2. Tenders invited.

London (Westminster).—Yates, Cooke & Darbyshire, architects, 43, Gt. Marlborough-st., W.1, prepared plans, on behalf of Odhams Press, Ltd., for bridge over Wilson-st. premises of company.

Lowestoft.—B. S. to provide 12 bathing huts on North Beach, at £120.—B.S. also to have outside of pavilion on South Pier painted, at £200.

Lymm.—W. Turner, builder, Frieston-rd., Timperley, Altrincham, propose to develop land at Statham estate for houses. Plans prepared for 157 houses and 8 shops.

Macclesfield.—School Buildings Committee approved plans for Ash-grove Council school. Architect, H. Quentry Farmer.

Manchester.—Northenden Golf Club members propose rebuilding golf house on links, off Palatine-rd., Northenden, at £6,000.—E.C. propose extensions to elementary schools, Princes-rd., West Didsbury, for 120 children. Plans in Architect's Dept., Education Offices, Deansgate.—H. F. V. Newsome, 2, Blue Boar-court, proposes development of land off Styal-rd., Heald Green, for 146 houses. Plans in course of preparation.—Manchester Brewery Co., Ltd., Woodside Brewery, Eccles New-rd., Salford, propose adapting house, Wilbraham-rd. and Hart-rd., Fallowfield, into hotel. Architect, G. Westcott, F.M.S.A., 13, Bridge-st.—S. Haling, film distributor, 12, Moreton-st., Blackfriars, secured site in Great Ducie-st., near Exchange Station, for storage of films. Plans by Teasedale & Sunter, architects, 4, St. Mary's, Parsonage. Estimated cost £25,000 to £30,000. Contracts not let.—John Crampton & Co., Ltd., Princes-st., Cornbrook, propose factory at Wythenshawe. Plans by H. S. Fairhurst & Son, F. & A.R.I.B.A., 55, Brown-st. Contracts not let.—J. Tetley & Son, Ltd., The Brewery, Hunslet-rd., Leeds, propose rebuilding "Sir Charles Napier" public-house Lower Moss-lane, Hulme, to new building line. Architect, F. Riley, L.R.I.B.A. (Brameld & Smith), County-chams., 4, Cannon-st.—Phœnix Brewery Co., Ltd., Green-lane, Heywood, propose rebuilding "Half Way House" hotel, Middleton-rd. and Bury Old-rd., Crumpsall. Architect, H. H. Clough, L.R.I.B.A., Old Market-chams., Rochdale.—Col. G. Westcott, F.M.S.A., Gamecock-chams., 13, Bridge-st., been appointed to prepare plans for rebuilding of "New Inn" public-house in Hackle-st., Clayton, for Groves & Whitnell, Ltd., Regent-rd. brewery, Salford.

March.—U.D.C. approved:—Addition to garage, Wisbech-rd., Eastern Counties Omnibus Co.

Meriden.—R.D.C. approved:—Café and offices at Coventry-rd., Allesley, for M.W. Service Station.

Nantwich.—R.D.C. approved proposals for 28 houses.

Nelson.—M.H. approved Corporation's scheme for 35 houses for aged persons on Pinder-st. site.

Newburn-on-Tyne.—R. Bainbridge, builder, Two Ball Lonnen, Newcastle, to erect 26 semi-detached houses on South Denton estate, to plans by Hetherington & Wilson, 52, Westgate-rd., Newcastle-on-Tyne.

Newcastle-on-Tyne.—Plans approved for warehouse in Back Ridley Villas for Kinghorn & Sons. Architects, Liddle & Batchelor, Milburn House, Newcastle. Contract not placed. City Council approved lay-out plans for three new building estates. Architects are F. M. Dryden, Market-st., Newcastle, Watson & Scott, 16, Pilgrim-st., Newcastle, and J. McEwen, Elswick-rd.—C. S. Errington, 21, Grainger-st. West, appointed architect for rebuilding of Messrs. Faith's factory in Foundry-lane.

North Riding.—C.C. to carry out additions to Poor Law institution at Dean-rd., Scarborough.—E.C. proposes alterations to Lady Lumley grammar school, £3,000; Richmond grammar school, £3,200; and Yarm grammar school, £2,100. Plans for all schemes by J. R. White, County Architect, County Hall, Northallerton.

Norton Radstock.—U.D.C. to apply to M.H. for sanction for loan of £640 for site at Westfield.

Ossett.—Electrical Distribution of Yorkshire, Ltd., to carry out extensions at electric sub-station at South Ossett. Plans approved. Tenders to be invited.

Plymouth.—T.C. to borrow £1,040 for erection of 3 flats in Lambhay-st. and £4,160 for 12 flats in Peel-st., Stonehouse; also to apply to M.H. for sanction to purchase further 9 acres of land nr. Efford, for erection of dwellings.—Sanction of M.H. to borrowing £4,500 for baths and wash-houses in Hoegate-st. is to be applied for by City Council.

Preston.—Page & Taylor, Ltd., Preston Docks, Ashton, propose 500 houses at Lea and Ashton.

Richmond (Yorks).—T.C. to obtain tenders for offices adjoining Old Theatre, Victoria-rd. Plans by B.S.

Rugby.—Warwickshire E.C. propose extensions and central hall at Westlands girls' school.

Salop.—C.C. propose adapting Iron Bridge institution for sick hospital and construction of nurses' home at £6,207.

Scarborough.—Preliminary negotiations in hand for acquisition of site for girls' school for North Riding E.C. County Architect is J. R. White, County Hall, Northallerton.

Sibsey.—Vicar, Rev. R. V. Eadon, and Parochial Council of St. Margaret's propose restoration of parish church at £2,000.

Springhead.—Lees Paper Staining Co., Oldham, propose extensions to Rome Mill, on site adjoining Walkers-lane.

Southend-on-Sea.—C.B. recommend application to M.H. to sanction a loan of £510 for additional classroom at Brewery-rd. school.—Plans passed:—classroom and kitchen, St. Erkenwald's Church, York-rd., Parochial Church Council (Rev. J. Holyoak); factory extensions, Ekco Works, Priory-crescent, E. K. Cole, Ltd.; shop with flat over and 4 flats, Prince-av., corner of Colemans-av., Mrs. W. J. Standen; 16 houses, Connaught-gdns., and 8 houses, Caulfield-rd., W. L. Allen; 30 houses, Herbert-rd., Shoebury, G. V. Burley.

Stratford-on-Avon.—R.D.C. to instruct architect to prepare detailed drawings of scheme for office accommodation and Council Chamber.

Sunderland.—T.C. approved plans by J. W. Fatkim for alterations to premises in Sea-rd for Thompsons Bros. and plans by F. L. Carroll, Chester-rd., Sunderland, for alterations to premises in Potts-st. for D. Eldman.—T.C. propose 80 houses in Leechmere-rd. T. P. Collinge, B.S.

Swansea.—Borough Architect estimated £703 12s. for recovering roof with steel at Cwmllwyd hospital. Council approved.—Council recommend on Clyne Valley, Killay and Dunvant drainage scheme at £62,687.—At Town Hill Playing Fields groundsman's house to be built at £560.—Director of Education to communicate with B. of E. regarding alterations to Dyfatty and Hafod Council schools.—B. of E agreed to nursery school at Nelson-ter. at £5,000, and Borough Architect to prepare detailed and invite tenders.—Borough Architect to prepare plans and specifications for installation of a low pressure hot water system at Cwmbwrla boys' school.—Plans passed:—Rebuilding, 271, Oxford-st., Marks & Spencer.

Walsall.—Health Committee propose additional block of 26 beds and completion of administrative block at Goscote hospital and sanatorium. Cost £18,500. J. Taylor, B.S.

Wellingborough.—F. Ireson & Sons, Bank-rd., proposes development of land off Brickhill-rd. and have prepared their own plans for 26 houses.

Wellington.—U.D.C. propose 50 houses, Slang-lane.

Wharfedale.—R.D.C. approved:—20 cottage houses, Pool, for W. L., H. & W. Whiteley.

Wigan.—R.D.C. approved:—20 houses for Wm. Finch, Wrightington.

Windsor.—T.C. approved:—Additions to King Edward VII Hospital, for Governors.

Wolverhampton.—T.C. approved:—Hanbury Lawn Tennis Club, pavilion, Hanbury-crescent: A. J. Fieldhouse, 246 houses and new streets, Elston Hall estate (south side), Bushbury: Wm. Sharratt, Ltd., lay-out of 116 houses, estate, Three Tuns-lane, Church-rd., Bushbury.

Yorks.—Subject to M.H. sanction, 16 houses to be built at Crigglestone and 12 at Netherton.

PATENTS

APPLICATIONS PUBLISHED.*

408,231.—A. D. Paterson: Method of repairing and correcting uneven sealed or unsealed road paving-surfaces.

408,235.—J. H. Bennetts: Tag, or bolt for insertion in concrete.

408,394.—H. J. Tibbles and Rely-a-Bell Burglar and Fire Alarm Co., Ltd.: Protective grilles for windows.

408,395.—J. C. Currah: Larders for dwelling-houses.

408,423.—J. S. Reid: Flexible channel for receiving and guiding window panes.

408,436.—Naamlooze Vennootschap Ingenieursbureau Voorheen E. Handl and E. Handl: Pumps for concrete.

408,447.—J. V. Cruysse: Roofs and roofing-slabs.

408,465.—P. Ortmaier: Manufacture of earthenware, cement, and concrete pipes and tubes.

408,471.—A. Bardet: Sliding doors or gates.

408,476.—H. J. Haynes: Means for marking roadways.

408,490.—G. M. Fergusson: Plug and socket closures for wash basins, baths and sinks.

408,500.—H. K. Kaplan: Construction of scaffolding and staging and other temporary structures.

408,516.—F. H. Rogers (Keramag Keramische Werke Akt. Ges.): Ceramic wash basin.

408,527.—Fibroplast Ges.: Longitudinal sieve machines for the manufacture of paper, cardboard and fibrous building plates.

408,528.—C. V. Blumfield and I. G. Richards: Fabrication of concrete flooring and ceiling constructions.

408,546.—E. G. P. Mopin: Construction of building for use as a shed or hall.

* Period for opposition expires on June 18.

BOOK REVIEWS

The Use of Copper in Plumbing. By A. C. MARTIN. Edited by FRANK HEROD. Manchester: The Plumbing Trade Journal Co., Ltd. Price 3s. 6d.

In this small work a practical craftsman with ability to teach makes a valuable contribution towards the spread of knowledge of a subject of rapidly increasing importance. In a large measure the introduction of light-gauge copper pipes assembled by means of compression jointing fittings has more or less revolutionised domestic plumbing by placing within reach of the smaller plumber a material possessing many self-evident advantages. And with the reintroduction of the "one-pipe" system the popularity of this material must increase. Until recent times the practical difficulties standing in the way of satisfactorily welding copper were very generally regarded as being insuperable. But the scientist is never beaten and he has presented us with a new alloy filler that has made the operation a comparatively simple one. To the practical plumber who would keep abreast of the times, this means that he must acquire what is for most a new form of skill and learn to handle new tools. A plumber skilled in lead burning will with a little instruction experience small difficulty. The main point is, however, that up to the present a plumber without a knowledge of lead burning was not greatly handicapped; but now, if not to be left behind, he must become skilful in the use of the pressure-fed blowpipe in forming welded copper joints. It cannot be doubted that this method of jointing, and particularly so for the larger bore pipes used for soil and waste, is one that has come to stay.

The Practical Electricians' Pocket Book, 1934. Edited by F. H. ROBINSON and published by Electrical Trading. Price 2s. 6d. net.

The thirty-sixth edition of this useful work marks a year of great progress in an industry almost entirely dependent on the sustained effort of the research worker for any considerable advance. In a short but interesting review of technical developments during 1933, Mr. A. P. M. Fleming shows that very much has been achieved and that the advance has been general. Hitherto the pocket-book (and though with age it has put on weight it can still be so described) has been regarded as a handy work of reference for the practical electrician. While still retaining that character it has in the present edition been remodelled for study in various departments of electrical work. This has added to its interest from the point of view of both architect and builder.

Drainage and Sanitation. By E. H. BLAKE, C.B.E. London: B. T. Batsford, Ltd. 15s. net.

First published in 1913, this work has now reached a fourth edition and merits its success. The difficulty of a writer on the general subject of sanitation does not consist in finding something to say, but in deciding what matter may safely, and what other matter may fittingly, be left untouched upon. In this respect the present author discards some of the much-worn openings, and favours us instead with some short and really interesting historical notes, designed to engage and retain our attention. Avoiding, also, the faults common to books based upon or written around illustrations and diagrams borrowed from trade catalogues, and also those found in works professedly written in the interests of practical readers, but really intended to attract the attention of official buyers interested in technical school training, the author gives us something of real value. The book does not completely cover the ground (no single book could do so); but, so far as it goes, it well fulfils the original purpose of helping both the novice and the experienced practitioner to a better understanding of sanitation than is sometimes shown in relation to works carried out.

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HARD YORK—	
Delivered at any Goods Station, London.	
Scappled random blocks Per ft. cube	6 3
6 in. sawn two sides landing to sizes (under 40 ft. super) Per ft. super	5 1½
6 in. rubbed two sides, ditto "	6 1½
4 in. sawn two sides slabs (random sizes) "	3 1½
3 in. ditto ditto "	2 8
2 in. self-faced random flags Per yd. super	8 0

CAST STONE.

Delivered in London area in full van loads, per ft cube: Plain, 8s. 6d.; Moulded, 9s. 6d.; Cills, 10s. 0d.

SOFT WOOD.

GOOD BUILDING DEAL.

Inches.	Per stan.	Inches.	Per stan.
4 × 11	£23 10	3 × 6	£18 10
4 × 9	22 10	3 × 11	19 10
4 × 8	21 0	2 × 11	19 10
4 × 7	19 0	3 × 9	19 10
3 × 8	18 0	2½ × 9	19 10
3 × 7	18 10	3 × 4½	18 0
2½ × 7	18 10	3 × 4	18 0

PLANED BOARDS.

1 × 11	£22 10	1 × 9	£21 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
⅝	16/-	1½	26/-
¾	17/-	1¾	32/6
1	20/-		

TONGUED AND GROOVED FLOORING.

Inches.	per sq.
1	21/-
1½	26/-
1¾	32/6

MATCHING (BEST).

Inches.	per sq.
⅝	16/-
¾	18/6
1	22/6

ins. BATTENS.	s. d.	SAWN LATHS.	s. d.
½ × 2 per 100 ft.	2 6	Per bundle	2 3

HARD WOOD.

1 INCH AND UP THICK.

	£ s. d.
Average price for prime quality.	
Dry Austrian Wainscot, per ft. cube	0 15 0
Dry American and/or Japanese Figured Oak, per ft. cube	0 12 0
Dry American and/or Japanese plain Oak, per ft. cube	0 10 0
Dry sq. edged Honduras Mahogany, per ft. cube	0 14 0
Dry log-cut Honduras Mahogany, per ft. cube	0 16 0
Dry Cuba Mahogany, per ft. cube	1 1 0
Dry Teak, per ft. cube	0 14 0
Dry American Whitewood, per ft. cube	0 10 0
Best Scotch Glue, per cwt.	3 0 0
Liquid Glue, per cwt.	4 7 0 to 5 10 0

SLATES.

First quality slates from Bangor or Portmadoc, carriage paid in full truck loads to London Rate Station. Per 1,000 actual.

	£ s. d.		£ s. d.
24 by 12	29 15 0	18 by 10	15 12 6
22 by 12	25 0 0	18 by 9	13 15 0
22 by 11	22 10 0	16 by 10	13 10 0
20 by 12	22 0 0	16 by 8	10 7 6
20 by 10	19 7 6		

TILES.

Delivered at London rate stations in full truck loads of not less than 6 tons.

	Per 1,000 f.o.r. London.
Best machine-made tiles from Broseley or Staffordshire district	£4 7 0
ditto hand-made ditto	5 0 0
Ornamental ditto	5 8 6
Hip and valley tiles (per dozen) Hand-made	0 9 6
Machine-made	0 9 0

METALS.

	£ s. d.
JOISTS, GIRDERS, &c., TO LONDON STATION, PER TON—	
R.S. Joists, cut and fitted	£11 0 0
Plain Compound Girders	12 0 0
" Stanchions	15 0 0
In Roof Work	18 0 0

MILD STEEL ROUNDS.—To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
⅛ in.	12 0 0	⅝ in. to ¾ in.	10 15 0
¼ in.	11 0 0	⅞ in. to 2½ in.	10 10 0

WROUGHT-IRON TUBES AND FITTINGS—

(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward, if sent from London Stocks.)

	Standard Wrot. Mild Steel Tubes and Tubulars	Genuine Wrot. (Puddled) Iron Tubes and Tubulars	Standard Fittings	Standard Flanges
	Sizes ⅛in. to 6in.	Sizes ⅛in. to 6in.	Sizes ⅛in. to 6in.	Sizes ⅛in. to 6in.
	%	%	%	%
Gas	65	52½	57½	70
Water	61½	43½	52½	65
Steam	57½	45	47½	60
Galv. gas	52½	40	47½	60
Galv. water	47½	35	42½	55
Galv. steam	42½	30	37½	50

C.I. HALF-ROUND GUTTERS—London Price ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/5½	1/1½	4½d.
3½in.	1/6½	1/3	5½d.
4 in.	1/8½	1/4½	6½d.
4½in.	1/8	1/6½	9½d.
5 in.	1/10½	1/8½	10d.

O.G. GUTTERS.

3 in.	1/7½	1/5½	7d.
3½in.	1/9½	1/5½	7½d.
4 in.	1/11	1/6½	8½d.
4½in.	2/0	1/9½	9½d.
5 in.	2/4½	2/0½	11½d.

RAIN WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in.	2/2½	1/4½	2/0
2½in.	2/3½	1/6½	2/4½
3 in.	2/9½	1/11	2/10½
3½in.	3/3½	2/3½	3/3½
4 in.	3/9	2/9	4/0.

Less 20 per cent. trade discount.

Tonnage allowance—4 ton lots, 5 per cent.
2 ton lots, 2½ per cent.

L.C.C. COATED SOIL PIPES—London Prices ex Stock.

	Pipe.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
2 in. per yd. in 6 fts.	2 8	1 11	2 3
2½in. "	3 0	2 1	2 10
3 in. "	3 4	2 3	3 5
3½in. "	2 7½	2 10	3 11
4 in. "	4 0	3 2	4 6

L.C.C. COATED DRAIN PIPES—London Prices ex Stock.

	Pipe, angles, stock angles.	Bends, stock angles.	Branches.
	s. d.	s. d.	s. d.
3 in. per yd. in 9 ft. lengths	3 0	4 6	7 0
	cwt. qr. lbs.		
4 in. "	1 1 20	4 9	5 6 8 9
5 in. "	1 2 22	5 10	9 6 13 6
6 in. "	2 0 6	6 10	12 0 18 0

Gaskin for jointing 41/- per cwt.

IRON—	Per ton in London. £ s. d.		£ s. d.
Common bars	10 0 0	to	10 10 0
Staffordshire Crown Bars—			
Good merchant quality	10 10 0	to	11 0 0
Staffordshire Marked Bars	14 0 0		15 0 0
Mild Steel Bars	9 0 0		10 0 0
Steel Bars, Ferro-Concrete quality, basis price	8 10 0		9 0 0
Hoop iron, basis price	11 0 0		12 0 0
" Galvanised	27 10 0		28 10 0
Soft Steel Sheets, Black—			
Ordinary sizes, to 20 g.	11 0 0		11 10 0
" " " 24 g.	12 0 0		13 0 0
" " " 26 g.	14 0 0		15 0 0
Sheets Flat Best Soft Steel, C.R. and C.A. quality—			
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	14 0 0		15 0 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	15 0 0		16 0 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g.	17 10 0		18 10 0
No. 1 quality £4 per ton extra.			
Flat and Galvanised Corrugated Sheets—			
Ordinary sizes, 6 ft. to 9 ft. to 20 g.	13 10 0		15 0 0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	15 10 0		16 10 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	16 10 0		18 0 0
Sheets, Galvanised Flat, Best quality—			
Best Soft Steel Sheets, 6 ft. by 2 ft. to 3 ft. to 20 g. and thicker	14 10 0		16 10 0
Best Soft Steel Sheets, 22 g. and 24 g.	15 0 0		17 0 0
Best Soft Steel Sheets, 26 g.	16 10 0		18 0 0
Cut Nails, 3 in. to 6 in.	15 10 0		17 0 0
(Under 3 in. usual trade extras.)			

METAL WINDOWS.—Standard sizes, suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1s.4d to 1s. 7d. per foot super.

COPPER.

	s. d.
Seamless Copper tubes (basis) per lb.	0 9
Strong sheet "	0 10
Thin "	0 11
Copper nails "	1 0
Copper wire "	0 11

PLUMBERS' BRASS WORK.

Delivered in London

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/-	45/-	76/-	153/-	246/-	510/- per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/-	92/-	174/-	300/-	588/- per doz.

* The information given on this page has been specially compiled for THE BUILDER, and is copyright. The aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

PRICES CURRENT OF MATERIALS—(*contd*).

RIVER PATTERN SCREW DOWN MAIN FERRULES.

¾ in.	1 in.	1 in.
39/-	60/-	116/6 per doz.

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.	
7/6	10/-	14/-	23/-	30/-	42/-	per doz.

DOUBLE NUT BOILER SCREWS.

¾ in.	1 in.	1¼ in.	1½ in.	2 in.	
7/6	11/-	17/-	29/-	36/-	63/- per doz.

BRASS SLEEVES.

1¼ in.	2 in.	3 in.	3½ in.	4 in.	
10/-	12/-	20/-	24/-	31/-	per doz.

NEW RIVER PATTERN CROYDON BALL VALVES S.F

¾ in.	1 in.	1¼ in.	1½ in.	2 in.	
35/-	56/-	98/-	162/-	228/-	per doz.

DRAWN LEAD P. & S. TRAPS WITH GRASS CLEANING SCREW.

	1¼ in.	1½ in.	2 in.	3 in.	
8 lbs. P. traps	33/-	41/-	56/-	101/-	per doz.
8 lbs. S. traps	35/-	45/-	66/-	126/-	,,

TIN.—English Ingots, 2/5 per lb. SOLDER.—Plumber 1/-, Tinmen's, 1/2, Blowpipe, 1/3 per lb.

LEAD, &c.

(Delivered in London.)	£	s.	d.
LEAD—Sheet, English, 4 lb. and up.....	18	10	0
Pipe in coils	17	0	0
Soil pipe.....	24	10	0
Compo pipe	25	0	0

NOTE.—Country delivery, 20s. per ton extra; lots under 3 cwt. 4s. per cwt. extra, and over 3 cwt. and under 5 cwt., 2s. 6d. per cwt. extra. Cut to sizes 4s. cwt. extra.

Old lead, ex London area, at Mills.....per ton } £9 10 0

PAINTS, &c.

		£	s.	d.
Raw Linseed Oil, in pipes	per gallon	0	2	8
,, ,, ,, in barrels	,,	0	2	10
,, ,, ,, in drums.....	,,	0	3	1
Boiled ,, ,, in barrels	,,	0	2	11
,, ,, ,, in drums.....	,,	0	3	1
Turpentine, in barrels	,,	0	4	4
,, in drums (10 galls) ..	,,	0	4	6
Genuine Ground English White Lead, per ton (In not less than 5-cwt. casks.)		44	0	0

Extra for 1-cwt. kegs over 5-cwt. casks is 5/0 cwt.

GENUINE WHITE LEAD PAINT.

"Father Thames." "Nine Elms." "Park." "Supremus." "St. Paul's." "Morganswyte." "Polacco." "J" Brand, and other best brands (in 14-lb. tins) not less than 5-cwt. lots per ton delivered

	£	s.	d.
	62	0	0
Red Lead, Dry (packages extra) .. per ton	31	0	0
Best Linseed Oil Putty ..... per cwt.	0	13	6
Size. XD quality ..... ftn.	0	3	0

VARNISHES, &c.

		Per gallon
Oak Varnish	Outside	0 14 0
Fine ditto	ditto	0 16 0
Fine Copal.....	ditto	0 18 0
Pale Copal.....	ditto	1 0 0
Pale Opal Carriage	ditto	1 4 0
Best ditto	ditto	1 12 0
Floor Varnish	Inside	0 16 0
Fine Pale Paper	ditto	0 18 0
Fine Copal Cabinet	ditto	1 2 0
Fine Copal Flatting.....	ditto	1 0 0
Hard Drying Oak	ditto	0 18 6
Fine Hard Drying Oak	ditto	0 19 6
Fine Copal Varnish	ditto	1 0 0
Pale ditto	ditto	1 12 6
Best ditto	ditto	1 2 6
Best Japan Gold Size.....		0 12 0
Best Black Japan		0 10 0
Oak and Mahogany Stain (water).....		0 12 6
Brunswick Black		0 7 0
Berlin Black		0 14 0
Knotting (patent)		0 15 0
French and Brush Polish		0 12 0
Liquid Dryers in Terebene		0 9 0
Cufrass Black Enamel.....		0 7 0

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES.

Per ft.		Per ft.
15 oz. fourths ... 2½d.	32 oz. fourths	6½d.
15 ,, thirds..... 2¾d.	32 ,, thirds	8½d.
21 ,, fourths ... 3½d.	Obscured Sheet, 15 oz. ...	3d.
21 ,, thirds..... 3¾d.	,, ,, 21 oz. ...	4½d.
26 ,, fourths ... 4½d.	Fluted, 15 oz. 6½d., 21 oz.	9d.
26 ,, thirds..... 5½d.	Em'lld, 15 oz. 4½d., 21 oz.	5½d.

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED plate in CRATES OF STOCK SIZES.

	Per ft.
Rolled plate ¼ in.....	4½d.
Rough rolled ⅜ in.	5½d.
Rough rolled ½ in.	5½d.
Figured, Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish White	5½d.
Ditto, tinted	8d.
Rolled Sheet	4½d.
White Rolled Cathedral	4½d.
Tinted ditto	6½d.

Cast plate is same price as rough rolled.

"VITA" GLASS.

	Per ft. s.	d.
Clearsheet—not exceeding 1 foot.....	1	0
Do. do. 2 feet	1	3
Do. over 2 feet	1	9
Polished plate—not exceeding 1 foot	1	6
Do. not exceeding 2 feet	2	0
Cathedral—not exceeding 1 foot	1	0
Do. larger sizes	1	6
Horticultural Sheet and Cathedral "Vita" Glass. Sizes up to 24 inches by 18 inches or not exceeding 3 feet	1	0
3/16 in. Wired Georgian Design. Sizes up to 108 inches long by up to 24 inches wide.....	2	6

THE SCOTTISH BUILDER

NEW BUILDINGS

The Editor would be glad to receive information for publication under this heading from architects, builders, or other persons concerned. Items should be received at THE BUILDER *Office not later than Wednesday morning.*

ARBROATH.—HOUSING.—The Town Council has concluded negotiations for the purchase of ground to provide a new municipal housing site in Ladyloan.

BANFFSHIRE.—SCHOOLS.—The E.C. have decided to erect a new school at Portessie, and also to reconstruct Buckie Primary school, and Portsoy school.

DUMFRIES.—HOUSES.—Corporation have plans in hand for 44 houses at Nitsdale, at £13,000. Mr. R. S. Osbourne, architect, Dumfries.

DUNFERMLINE.—HOUSES.—The Dean of Guild Court has approved of a petition presented by the T.C. for 44 additional dwelling-houses at Baldridgeburn.

FALKIRK.—BUILDING.—The Dean of Guild Court has passed the following:—Messrs. R. and A. Main, Ltd., Gothic Iron Works, Falkirk, additional store at their works at Camelon, at £1,100; and J. B. Abercrombie, jun., Bainsford, Falkirk, bungalow, Dorrator-road, Camelon, at £800, and Thomas Kidd, blacksmith, Falkirk, shop, at £200, in Main-street, Camelon.

GALASHIELS.—ALTERATIONS.—The Health and Public Assistance Committee of Selkirk C.C. have acquired the Knowe Park Mansion, and alterations to cost £1,500 for the provision of a rest home and hostel for old and sick persons proposed.

GLASGOW.—RECONSTRUCTION.—Plans are in hand for reconstruction and additions to Arlington Baths. Messrs. Campbell and Hyslop, architects, 124, St. Vincent-street, Glasgow.

GREENOCK. — RECONSTRUCTION. — Plans have been prepared for reconstruction and additions at 33, Ingleston-street, and reconstruction and extensions at 30, Esplanade and Bentick-street. The architect is Mr. Alexander MacGregor, L.R.I.B.A., 48, Cathcart-street.

INVERURIE. — HOUSES. — The T.C. has acquired ground for housing purposes between Middlemuir-road and Blackhall-road. It is proposed to build 68 houses.

IRVINE.—SCHOOL.—A new £12,000 public school is to be erected, and plans have been prepared by Mr. William Reid, County Architect, Ayr.

MOFFAT.—HOUSES.—At a special meeting of the T.C. a site was selected for a building scheme of 30 houses. The houses will consist of 16 three-apartment flats, six three-apartment bungalows, and eight two-apartment flats. There was submitted to the meeting a report by Messrs. Reid & Forbes, 17, Great Stuart-street, Edinburgh, which showed that the total cost would amount to £10,436.

NEW GALLOWAY. — BUILDING. — The Stewarty C.C. to prepare plans for new police station at New Galloway and Dalry. Mr. W. A. McKinnell, County Architect, Kirkcudbright.

NORTH BERWICK.—RECONSTRUCTION.—Plans are in hand for reconstruction and extension to High School. The architect is Mr. F. W. Hardie, of Haddington.

PERTH.—HOUSES.—Perth and Kinross Joint C.C. agreed to proceed with the erection of 50 houses. Architects in the county and city of Perth are to be invited to submit plans of suitable types of houses, along with estimates of cost.

PRESTWICK.—ADDITIONS.—Plans are in hand for extensive additions, etc., to bowling green pavilion. Mr. Francis Pritty, architect, Prestwick.

ROTHESAY.—BANK.—Plans are in hand for a new British Linen Bank. Messrs. Thompson, Sandilands and McLeod, architects, West George-street, Glasgow.

SALTCOATS.—HOUSING.—The Department of Health for Scotland has recommended the Town Council to increase the erection of houses to relieve overcrowding from 28 to 60 houses in the five years' plan.

SHOTTS.—HOUSES.—The Lanarkshire C.C. are to erect 40 houses. Mr. Peter Smith, County Architect, Hamilton.

TAYPORT.—HOUSES.—Plans are in hand for the erection of 44 houses. Messrs. Allan and Friskin, architects, 26, Castle-street, Dundee.

Aberdeen City Architectship.

Aberdeen Town Council has agreed to change the designation of the director of housing and superintendent of town's properties to that of City Architect—a revival of an old office. The director of housing—now City Architect—is Mr. Alexander B. Gardner, L.R.I.B.A.

The Le Play Society.

Those who are interested in the study of various parts of Europe, either from the human, historic, or scientific point of view, or with the idea of making fresh international contacts and enjoying a summer holiday course, should be interested in the activities organised by the Le Play Society for August in Russia, Germany, Austria, Italy, or Yugo-Slavia. Home meetings in the Cotswolds, Kent and Rathlin Island are also to be held. Communications should be addressed to Miss Margaret Tatton, The Le Play Society, 58, Gordon Square, London, W.C.1.

BUILDING TRADE WAGES IN SCOTLAND*

Following are grade rates authorised by the Scottish N.J.C. for Building Industry. Painters by ruling of the Scottish National Painters' and Decorators' Joint Council, have from January 1 new rates. Grade A towns, 1/6 per hour; Grade B, 1/4; Aberdeen has a special rate of 1/5½. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur.

Grade Classifications ...	A	A¹	A²	A³	B	B¹	B²	B³
Craftsmen	1/6	1/5½	1/5	1/4½	1/4	1/3½	1/3	1/2½
Labourers	1/1½	1/1½	1/0½	1/0½	1/0	/11½	/11½	/11

Aberdeen	A	Dundee	A	Hawick	A¹	Perth	A	
Airdrie	A	Dunfermline	A	Helensburgh	A	Perthshire	A¹	
Alexandria	A	Dunoon	A	Inverness	B	Peterhead	A¹	
Arbroath	A¹	East Lothian	A	Kilmarnock	A	Renfrewshire	A	
Ayrshire	A	Edinburgh	A	Kincardineshire	A¹	Rothesay	A	
Bathgate	A	Falkirk	A	Kinross-shire	A	Roxburghshire	A¹	
Bo'ness	A	Forfarshire	A¹	Kirkcaldy	A	St. Andrews	A	
Broughty Ferry	A	Fort William	B	Lanarkshire	A	Selkirkshire	A¹	
Clackmannanshire	A	Galashiels	A¹	Leith	A	Stirling	A	
Coatbridge	A	Glasgow	A	Midlothian	A	Stirlingshire, West	A	
Dumbartonshire	A	Greenock	A	Motherwell	A	West Lothian	A	
Dumfries	A¹	Hamilton	A	Peeblesshire	A¹	Wishaw	A	
Dumfriesshire	A¹							

* The information given in this table is copyright. The rates of wages in various towns in England and Wales are given on page 910.

CURRENT PRICES FOR BUILDING WORK IN LONDON*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	8	9
Add if in clay	,, ,,	1	0
Add for every additional depth of 6 ft.	,, ,,	0	6
Planking and strutting to trenches	per foot super	0	3
Do. to sides of excavation, including shoring	,, ,,	1	0

CONCRETOR.

		s.	d.
Portland cement concrete in foundations 1 to 6	per yard cube	24	3
Add if in underpinning in short lengths	,, ,,	5	6
Add if in floors 6 in. thick	,, ,,	2	3
Add if in beams	,, ,,	2	9
Add if aggregate 1 : 2 : 4	,, ,,	9	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	,, ,,	2	0

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	27	0	0
Add if in stocks	,,	7	0	0
Add if in Staffordshire blues	,,	22	0	0
Add if in Portland cement and sand	,,	1	5	0

FACINGS.

		s.	d.
Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1½

POINTING.

		s.	d.
Neat flat struck or weathered joint	,, ,,	0	0	3

ARCHES.

		s.	d.
Extra only to the price of ordinary brickwork :—			
Fair external in half brick rings	,, ,,	0	0	10
Axed in stocks	,, ,,	0	0	9
Rubbed and gauged jointed in putty camber or segmental	,, ,,	0	6	0

SUNDRIES.

		s.	d.
Damp course in double course of slates breaking joint and bedded in Portland cement	,, ,,	0	0	11
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	,,	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard super	4	6
Three-quarter-inch vertical damp course	,, ,,	9	6
Three-quarter-inch on flats in two thicknesses	,, ,,	6	0
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	,, ,,	1	0

MASON.

		s.	d.
York stone templates fixed	per foot cube	12	9
York stone sills fixed	,, ,,	22	0
Bath stone and all labour fixed	,, ,,	10	6
Beer stone and all labour fixed	,, ,,	15	0
Portland stone fixed	,, ,,	15	6
Chilmark stone fixed complete	,, ,,	16	6

SLATER.

		s.	d.
Welsh 16 in. × 8 in. 3 in. lap. including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	,,	80	9
Do. 24 in. × 12 in. Do. Do.	,,	90	0

CARPENTER AND JOINER.

		s.	d.
Fir framed in plates	per foot cube	4	0
Do. joists	,, ,,	4	6
Do. roofs, floors and partitions	,, ,,	5	0
Do. trusses	,, ,,	7	3

	¾″	1″	1¼″	2″
Deal rough close boarding per sq.	30/-	35/-	43/-	70/-

		s.	d.
Flat centering for concrete floor, including struts or hangers ,,		50	0
Do. to beams	per ft. sup.	0	9
Centre for arches	,,	1	6
Gutter boards and bearers	,,	1	0

FLOORING.	¾″	1″	1¼″	1½″
Deal-edges shot per sq.	—	38/-	45/-	52/-
Do. tongued and grooved ,,	—	43/-	50/-	58/-
Do. matchings ,,	40/-	45/-	—	—
Moulded skirtings, including backings and grounds per ft. sup.	1/4	1/7	1/9	2/3

SASHES AND FRAMES.

		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	,, ,,	2	1
Add for fitting and fixing	,, ,,	0	3
Deal cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares, double hung, double hung with pulleys, lines and weights, average size		3	6

DOORS.	1½″	1¾″	2″
Two-panel square framed per ft. sup.	2/1	2/3	2/5
Four-panel Do. ,,	2/4	2/6	2/9
Two-panel moulded both sides ,,	2/6	2/9	2/11
Four-panel Do. Do. ,,	2/9	2/11	3/2

CARPENTER AND JOINER—continued.

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per foot cube	12	6

	1″	1¼″	1½″
Plain deal jamb linings framed per ft. sup.	1/7	1/8	1/11
Deal shelves and bearers ,,	1/2	1/4	1/7
Add if cross-tongued ,,	2d.	2d.	2d.

STAIRCASES.

	1″	1¼″	1½″	2″	2½″
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. x 1½ in.	per ft. run	0	9
Mahogany handrail, average 3 in. x 3 in.	,, ,,	6	0
Add if ramped	,, ,,	12	0
Add if wreathed	,, ,,	24	0

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/-
Sash fasteners	11½d.	Mortice locks	4/6
Casement fasteners	1/5	Patent spring hinges and letting into floor and making good	19/-
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	15	0
Plain compound girders	,,	18	0
Do. stanchions	,,	20	9
In roofwork	,,	26	6

RAIN-WATER GOODS.

	3″	4″	5″	6″
Half-round plain rebated joints ...ft. run	1/-	1/1	1/3	1/6
Ogee Do. Do. ,,	1/2	1/3	1/9	2/3
Rain-water pipes with ears ,,	1/3	1/10	—	—
Extra for shoes and bends each	2/9	3/11	—	—
Do. stopped ends ,,	1/1	1/4	1/9	2/6
Do. nozzles for inlets ,,	2/2	2/7	3/7	4/-

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	38	0
Do. do. flats	,,	37	0
Extra labour and solder in coated cesspools	each	6	9
Welt joint	per ft. run	0	6
Soldered seam	,, ,,	1	3
Copper nailing	,, ,,	0	3

	½″	¾″	1″	1½″	2″	4″
Drawn lead waste per ft. run	11½	1/4	1/6½	2/5	2/8	—
Do. service... ,,	1/3	1/9	2/-	3/-	—	—
Do. soil ..... ,,	—	—	—	—	—	5/9
Bends in lead pipe each	—	—	—	—	2/6	6/-
Soldered stop ends ,,	0/9	1/1	1/6	2/3	2/10	—
Red lead joints ,,	0/10	0/11	1/2	1/9	2/1	4/3
Wiped soldered joints ,,	2/3	2/9	3/0	3/10	4/10	6/9
Lead traps and cleaning screws ,,	—	—	—	10/6	14/-	—
Bib cocks and joints ,,	6/4	9/7	14/-	—	—	—
Stop cocks and joints ,,	12/4	14/2	20/8	54/-	—	—

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	0
Do. Do. Sirapite	,, ,,	2	3
Do. Do. Keen's	,, ,,	3	0
Add saw lathing	,, ,,	1	4
Add metal lathing	,, ,,	2	4
(Not including hangers or runners, etc., for suspended ceilings.)			
Portland cement screed	,, ,,	2	2
Do. plain face	,, ,,	3	3
Mouldings in plaster	per 1 girth	0	1½
One-and-a-half granolithic pavings	per yard sup.	4	6

GLAZIER.

		s.	d.
21-oz. sheet plain	per foot sup.	0	6½
26-oz. Do.	,, ,,	0	7½
Obscured sheet	,, ,,	0	8
¼-in. rolled plate	,, ,,	0	9
¼-in. rough rolled or cast plate	,, ,,	0	10
¼-in. wired cast plate	,, ,,	1	1

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup.	0	9
Knotting and priming	,, ,,	0	7
Plain painting, 1 coat	,, ,,	0	9
Do. 2 coats	,, ,,	1	2
Do. 3 coats	,, ,,	1	9
Do. 4 coats	,, ,,	2	4
Graining	,, ,,	2	3
Varnishing twice	,, ,,	1	9
Sizing	,, ,,	0	3
Flatting	,, ,,	0	7
Enamel	,, ,,	1	1
Wax polishing	per foot sup.	0	6
French polishing	,, ,,	1	2
Preparing for and hanging paper	per piece 2/- to	4/-	

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Act, and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

NEWS ITEMS

An Appointment.

The Housing Committee of Leeds Corporation has recommended the appointment of Mr. J. A. Bent, who since 1926 has been architectural assistant to the housing director of Manchester, as architectural assistant in the Leeds Housing Department.

"The Municipal Year Book."

We have received a copy of the supplement to the "Municipal Year Book, 1934," containing the names of members of the County Councils in England and Wales returned at the Triennial Elections in March, 1934.

Development at Whitehaven Dock.

A dock development scheme at Whitehaven is proposed, estimated to cost £300,000. The development is to provide accommodation for ships capable of carrying cargoes of from 3,000 to 5,000 tons of coal for foreign markets, and with the increased facilities it is expected that the output of the Whitehaven collieries will be doubled. A preliminary report upon a recent survey of the harbour by Sir Murdoch Macdonald, M.P., M.Inst.C.E., concentrates upon a plan for the provision of the necessary dock accommodation on the south side of the harbour. It is hoped that the scheme will receive a Government grant.

Carnarvon Town Walls.

Owing to the generosity of the owner, Sir Michael Duff-Assheton-Smith, the greater part of the mediæval town walls of Carnarvon have been presented to the nation. The charge is vested in H.M. Office of Works. Mr. W. G. A. Ormesby-Gore (First Commissioner), in announcing the gift, states that "These walls, which are a complete circuit round the mediæval borough, when they have been exposed to view and carefully repaired, will form, together with the Castle, one of the most impressive national monuments in the British Isles."

Appointments Vacant.

Staffordshire Mental Hospitals Board invites applications for the post of clerk of works to supervise erection of new buildings at Burntwood Mental Hospital, near Lichfield. Salary is £8 8s. per week. Applications to Mr. H. L. Underwood, County Buildings, Stafford, by June 2.

Southampton T.C. require an architectural assistant (temporary), at salary of £250 per annum. Applications must be made by June 5 to Mr. S. G. Stanton, Borough Engineer and Surveyor, Civic Centre.

Walthamstow T.C. require a clerk of works in connection with the erection of electricity showrooms and offices in Church Hill. Salary is £6 weekly. Applications by June 4 to Mr. Francis G. Garner, Town Hall, E.17.

Doncaster R.D.C. invites applications for the post of clerk of works to supervise alterations at Nether Hall. The salary is £6. Applications must be sent to Mr. Roy Bowers, clerk, Nether Hall, Doncaster, by May 30.

TRADE NEWS

North Side, Clapham Common.

At Hanover-square, on May 17, Messrs. Knight, Frank & Rutley announced at the auction that lots 15 and 16, comprising the rear portion of this estate, extending to about 74,000 sq. ft., had been sold by private treaty. The sale proceeded with the 14 houses overlooking Clapham Common, and in order to give private buyers an opportunity they were offered separately and not as one block. No. 14, North Side, sold for £1,200, No. 18 for £1,250, No. 19 for £1,225, No. 21 for £2,050, and negotiations are in hand for those which remain.

Hand-moulded Bricks.

Messrs. Elliott's West Howe Pottery (Dorset, Ltd.), near Bournemouth, ask us to state that visitors will be welcome at the works during the summer months, when they can witness the process of making Elliott's sand-faced hand-moulded bricks.

TENDERS

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.

* Denotes *accepted*.
† Denotes *provisionally accepted*.
‡ Denotes *recommended for acceptance*.
§ Denotes *accepted subject to modifications*.
¶ Denotes *accepted by H.M. Government Departments*.

Aberdeen.—Building of bridges at Dinnet and Boat of Hatton, for the Aberdeen County Road Board:—

Boat of Hatton bridge—
*W. Tawse, Ltd., Aberdeen £8,469

Dinnet bridge—
*W. Tawse, Ltd., Aberdeen 5,998

Aberdeen.—Additional timber groynes in connection with the sea protection work at the beach foreshore, near Footdee, for the T.C.:—

*W. J. Anderson £2,565 6 9

Aberdeen.—New maternity hospital at Foresthill. Mr. James Nicol, architect, 367, Union-street:—

Excavation, brick and mason—*R. Birnie.
Fireproof floors, etc. — *J. Scott (Aberdeen), Ltd.
Plumber—*G. N. Haden & Son.
Joinery, carpentry and ironmongery—*D. McAndrew & Co., Ltd.
Plaster—*G. Rome & Co., Ltd., Glasgow.
Rubber flooring—*North British Rubber Co. Ltd., Edinburgh.
Glazier—*Gordon & Watt.
Asphalt—*J. Scott & Son.
Terrazzo—*Toffolo, Jackson & Co., Glasgow.
Tile—*Diespeker & Co., Glasgow.
Electrical—*J. F. Anderson.
Site excavation and roads—*J. Leich.
(Remainder of Aberdeen.)

Arnold.—For houses for the U.D.C. on Ravenswood estate:—

	Per house.
16 houses—	
*J. Herring & Son	£274 15
10 houses—	
*J. Herring & Son	254 0

Beeston.—22 houses in Central-avenue and Boundary-road, for the U.D.C.:—

*M. Craske & Co., Nottingham £5,477

Billingham.—150 houses on the Cowpen-lane estate, Billingham-on-Tees, for the U.D.C. Messrs. Kitching & Co., architects, 21, Albert-road, Middlesbrough:—

*S. Coates, Ltd., North Ormesby ... £43,200

Birmingham.—Alterations at the Winsen Green Hospital, in Lodge-road, for the Committee of the Mentally Defective. Mr. D. E. Turner, L.R.I.B.A., Officer of Works, Holy Moor Mental Hospital, Northfield. Quantities by Mr. A. Groves, 10, Berkeley-street, Broad-street:—

*J. E. Williams, Birmingham.

DON'T TENDER UNSUCCESSFULLY

SECURE CONTRACTS WITH

THE STEEL SCAFFOLDING CO., LTD.

Imperial House, 86, Regent St., London, W.1
Telephone: Regent 1157

Blackpool.—Transformer house in Marlborough-road, for the C.B.:—

*R. Hogarth.
(In lieu of tender withdrawn.)

Blackpool.—Transformer house in Bath-street, for the C.B.:—

*R. Hogarth.

Blackpool.—Construction of two shelters at Little Bispham, for the C.B.:—

*Pickover & Sykes.

Blackpool.—Asphalt plant building at the highway depôt at Bispham, for the C.B.:—

*Herbert Joyce & Sons, Ltd.

Blackpool.—Palisade walls, gateways, etc., in Condor-grove, for the C.B.:—

*Herbert Joyce & Sons, Ltd.

Blackpool.—Technical college, for the C.B.:—

*R. G. Tarran, Ryde-avenue, Hull.

Boston.—Additions to works in Bargate End, for Messrs. Andrew & Co., corn merchants. Mr. H. A. Mobbs, architect, 18a, High-street:—

*F. Peck & Sons, Boston.

Bradford.—Extensions to Hillside Works, Nuttall-road, for Messrs. A. C. Walker & Sons, Ltd Messrs. Marsden & Willis, architects, 975, Wakefield-road:—

*F. Robinson & Sons, Ltd., Bradford.

Bramley.—Alterations and additions at Bathlane Mills, for Messrs. D. Wood & Co., Ltd. Messrs. Bain & Johnson, architects, Albion-street, Leeds:

*Appleyard Bros.

Brigg.—Foundations for retorts and elevator pit at gas works, for the U.D.C. Mr. Gilbert Ness, M.I.Struct.E., consulting engineer, Stonelea, Harlow Hill, Otley-road, Harrogate. Quantities by the consulting engineer:—

*F. Smith & Son, 5, Osborne-street, Grimsby.

Burton Latimer.—Warehouse at Constantia Mills, for the British and African Cereal Co., Ltd. Messrs. A. P. Lewis & Sons, Ltd., architects, Duke-street:—

*A. P. Lewis & Sons, Ltd., Burton Latimer.

Cambuslang. — Public convenience, for the Lanarkshire C.C. Mr. Thomas Stephens, sanitary engineer and architect, Hamilton:—

*W. Fyfe, Kirkhill Goods Station, Cambuslang £1,009 18 3½

Cardiff.—Convenience and electrical sub-station at Whitechurch-road, for the T.C. Mr. G. H. Whitaker, architect, City Hall:—

*T. F. Howell, Ltd., 83, Bartlett-street, Caerphilly £488

Coatbridge.—Alterations and additions to the Old Technical School, for the Lanarkshire C.C. Mr. John Stewart, architect, Albert-street, Motherwell:—

Excavation, brick and mason—	
*T. P. Jamieson, Oakley, Baillieston	£1,339 0 4
Joinery, carpentry and ironmongery—	
*Lanarkshire County Works Department, Motherwell	2,199 8 0
Slater—	
*G & R. Ross, Ltd. Airdrie ...	227 5 11
Plumber work and gasfitting—	
*Lanarkshire County Works Department, Motherwell	1,471 10 8
Plaster, cement and tile—	
*G. & R. Ross, Ltd., Airdrie	613 15 8
Heating—	
*G. N. Haden & Sons, Ltd., Glasgow	505 10 4
Electrical—	
*Lanarkshire County Works Department, Coronation-street, Holymuir	396 18 0

Dunfermline.—44 houses at Balridgburn, for the T.C. Mr. D. H. Shaw, City Architect:—

Excavation, brick and mason—	
*J. Stewart & Sons, ...	£4,832
Plumber—	
*A. Thomson & Son	1,398
Fencing—	
*G. Henderson, Fife	193
Joinery, carpentry and ironmongery—	
*J. Reid & Sons, Fife	3,326
Plaster—	
*W. M. Kennedy & Sons	1,287
Slater—	
*J. Robertson & Son	1,064
Painter—	
*H. T. Rolland	273
Electric installations, etc.—	
*J. Scott & Sons	189

(Remainder of Dunfermline.)

Denny.—New housing scheme at Herbertson-park, for the T.C. Mr. F. Cook, Burgh Architect and Surveyor, Denny :—

Excavation, brick and mason — *Allan Bros., Watson & Henderson, Chryston.
Plumber—*J. Graham, Denny.
Painter—*P. McKerracher & Co., Ltd., Glasgow.
Joinery, carpentry and ironmongery — *A. Laing, Falkirk.
Slater work and plastering, etc. — *J. K. Miller, Falkirk.

Dunoon.—Reconstruction, additions and extension at Cosy Corner Entertainment Hall Mr. John Fairweather, architect, 184, Trongate, Glasgow :—

Demolition, brick and mason—*J. Ferguson, Dunoon.

Edinburgh.—Reconstruction and additions to Portobello Electricity Power Station, for the T.C. Mr. E. J. MacRae, architect, High-street, Edinburgh.

Excavation, brick and mason—*J. Miller & Co., Ltd.
Joinery, carpentry and ironmongery—*J. Laidlaw & Sons, Ltd.
Plumber—*H. Twaddell & Sons, Ltd.
Slater—*M. McLean.
(All of Edinburgh.)

Elderslie.—20 houses and other works. Mr. John Coutts, architect, Hunter-street, Paisley :—

Excavation, brick and mason—*A. A. Stuart & Sons, Ltd., Glasgow.
Joinery, carpentry and ironmongery—*R. L. Connell, Calderhaugh, Lochwinnoch.
Slater—*J. Thomson & Son (Johnstone), Ltd., Johnstone.
Plumber—*John Pattison, Paisley.
Plaster—*T. Thursby, Clydebank.
Painter—*T. Hastie & Son, Glasgow.
Electrical installation, etc. — *J. Sweeney, Johnstone.

Elemore.—Sports pavilion on the Miner's Welfare ground :—

*Gradon & Sons, North-road, Durham.

Glasgow.—Police Recruits' Training Centre, for the T.C. Mr. Thomas Somers, City Architect :—

Excavation, brick and mason—
*A. M. McDougall & Co. £6,436 1 0
Plumber—
*J. Patterson & Co. (Plumbers), Ltd. 2,217 14 6
Plaster—
*J. C. McIntyre & Co. 662 9 11
Tile—
*Craven, Dunhill & Co., Ltd. 1,833 13 2
Electric—
*J. Stewart Denholm 2,232 7 4
Heating engineering—
*James Coombe & Co., Ltd. 1,078 12 0
(All of Glasgow.)

Glasgow.—New Squash Raquets Club buildings at Maryhill. Mr. James Miller, architect, 16, Blythswood-square :— ,

Excavation, brick and mason—P. & W. Anderson (Glasgow), Ltd.
Cement—*G. Rome & Co. (Glasgow), Ltd.
Joinery, carpentry and ironmongery—*J. Cochrane & Co., Ltd.
Plumber—*R. S. Renfrew & Sons, Ltd.
Electrical installation, etc.—*A. Robertson.
Painter—*W. Douglas & Son.
Plaster—*G. Rome & Co., Ltd.
Roof tiling, etc.—*A. Mackenie Ross.
(All of Glasgow.)

Haslingden.—Bowl house, tennis pavilion and conveniences at Worsley-park, for the T.C. Mr. R. Taylor, Borough Surveyor :—

Builder—*T. Brown & Son, Ltd.
Joiners—*F. B. Lindsay & Son.
Plumbing—*John Stevenson & Sons
Slating—*A. Holt.
(All of Haslingden.)

Kenilworth.—Footbridge adjoining Town Pool Bridge, for the Warwickshire C.C. Mr. T. H. Brown, County Surveyor and Bridgemaster :—

*A. Humphries, Chadwick End £308

Kidderminster.—Warehouse in Foley-park, for the West Midland Sugar Co., Ltd., Foley-park :—

*Duncan Stewart & Co., Ltd., Glasgow.

Lancaster.—Rebuilding premises destroyed by fire in Market-place, for Messrs. Wildgoose & Sons, Ltd. :—

*Thompson & Morris, Lancaster.

Lichfield.—For 28 houses on Leafields site, for the T.C. :—

*R. T. Rix & Son, Shenstone Woodend £7,599

London.—Contracts placed by H.M. Air Ministry for the week ending May 12 :—

Heating institute and educational block, Uxbridge —Brightside Foundry & Engineering Co., Ltd., Birmingham.
Officers & Airmen's, etc., Quarters, Northolt—Humphreys, Ltd., 187, Knightsbridge, S.W.7.

¶London.—Contracts placed by the War Office during the week ended May 17 :—

Pinehurst—new barrack blocks and offices—J. B. Edwards & Co. (Whyteleafe), Ltd., London, W.
Perham Down—new barrack blocks and offices—W. E. Chivers & Sons, Ltd., Devizes.
Woolwich—new boiler house—Demolition & Construction Co., Ltd., London, S.W.

¶London.—Tenders accepted by H.M.O.W. for the week ended May 17 :—

Porcelain Enamelled Table Tops—The Defiant Enamelled Tile Co., Ltd., Callard House, 74a, Regent-street, W.1.
Penge Telephone Exchange—steel casements—Humphries, Jackson and Ambler, Ltd., Brookhouse Works, Hawkens-street, Cornbrook, Manchester.
British Museum, North Wing—soil consolidation work—The Francois Cementation Co., Ltd., Bentley Works, Doncaster.
Brown Linen Holland—The Ulster Weaving Co., Ltd., Linfield, Belfast.
National Physical Laboratory, Teddington—tar spraying and remaking roads—Willment Bros., Baltic Wharf, Waterloo Bridge, S.W.1.

London.—Plumbing and sanitary engineering work in connection with the reconstruction of the floor of the second-class men's slipper-baths at the Hoxton public baths, for the Shoreditch B.C. :—

*Davis, Bennet & Co., Ltd. £1,650 19

London.—Internal repairs and redecorations to Addington Mansions and Avenell Mansions respectively, for the Islington B.C. :—

*W. J. Smith & Co., of 311, Hornsey-road, N.19 ..... £529 2 7
and 160 12 9

London. — Constructing conveyor pits and stanchion foundation at Grosvenor Dock, for the Westminster City Council :—

*K. Holst & Co. £745

London.—Additional accommodation at the electricity station for calibrating and testing meters, etc., for the Islington B.C. :—

W. Bolt & Sons, Ltd. £790
Ferriss Bros., Ltd. 789
Pitchers, Ltd. 746
F. P. Greenaway 744
John C. Mather & Son 721
W. S. Jerram 699
Thomas Cole (Barnsbury), Ltd. 685
*Bridges & Clarke, Ltd., 15, Whitehorse-road, Croydon 632
(All of London.)

2000 TONS MARBLE MASS PRODUCTION PRICES

JOHN STUBBS & SONS
LONDON LIVERPOOL

Manchester.—Alterations and additions to works in Heald-grove, Rusholme, for the Condensed Gas Co., Ltd., 202, Heald-grove, Rusholme. Mr. A. Shelmerdine, architect, 7, Westholme-road, Withington :—

*L. Taylor, Manchester.

Manchester.—Branch office at 230, Hyde-road, Gorton, for the Britannic Assurance Co., Ltd., Bond-street Corner, Birmingham. Messrs. Cruickshank & Seward, FF.R.I.B.A., architects, 18, Booth-street :—

*T. Warrington, Ltd., Hyde.

Manchester.—Extensions to the Institution and a nurses' home, for the Board of Management of Manchester Babies' Hospital, Burnage-lane, Levenshulme. Messrs. Bradshaw Gass & Hope, FF.R.I.B.A., architects, 19, Silverwell-street, Bolton :—

*J. Gerrard & Sons, Ltd., Manchester.
(Estimated cost £10,000.)

Manchester.—Petrol filling station and service garage in Princess-road, West Didsbury. Messrs. Roberts & Wood, architects, 26, King-street :—

*W. Barrell & Sons, Gatley.

Manchester.—Extensions to the Loreto Convent, Upper Moss-lane, Whalley Range, for the Catholic Authorities. Messrs. Hill, Sandy & Norris, F.R.I.B.A., architects, 9, Albert-square :—

General contractors—*G. MacFarlane & Sons, Ltd.
Brickwork—*C. H. Godfrey & Son.
Masonry—*Mather & Ellis.
Plastering—*J. Gibbons & Son, Ltd.
Plumbing—*J. Oakley & Sons.
(All of Manchester.)
(Estimated cost, £30,000.)

Market Bosworth.—Nurses' home at the Institution, for the Leicestershire C.C. Mr. W. Keay, F.R.I.B.A., County Architect, 16, Millstone-lane, Leicester :—

*E. Orton & Dalby, Hugglescote, near Leicester.
(Estimated cost £6,000.)

Morfa.—Sewerage disposal works at Morfa. Messrs. Taylor & Wallin, engineers, 5, Seville-place, Newcastle :—

*R. C. Crawford, Ormskirk £23,000

Newcastle.—Rebuilding and extending premises of Victoria Manufacturing Co., Ltd., in Bath-lane. Mr. J. N. Fatlin, architect, 77, Westgate-road :—

*A. Anderson, Sutton-street, Newcastle.

Newcastle-on-Tyne.—Conversion into offices and shops a block of premises in High St. Mary's-place. Messrs. Newcombe & Newcombe, architects, Eldon-square, Newcastle :—

*H. Waller, Back Waller-street, Newcastle.

Newcastle-on-Tyne.—Shop premises in Clayton-street, for Messrs. Martin. Messrs. Newcombe & Newcombe, architects, Eldon-square, Newcastle :—

*W. Milne, Manor Chare, Newcastle.

Newcastle-on-Tyne.—Extension to Messrs. J. Sinclair & Co.'s factory in Bath-lane. Mr. J. W. Taylor, architect, St. John-street :—

*J. Jackson & Son, Corporation-street, Newcastle.

Newcastle-on-Tyne.—Rebuilding and enlarging premises in Carliol-square, for Messrs. J. J. Greenfield & Co. Mr. C. W. Milburn, architect, Feethams, Darlington :—

*Lough Bros., Higham-place, Newcastle.

North Walsham.—24 dwellings on the Millfield-road estate, for the U.D.C. :—

*A. R. Sevinger, Wroxham £6,764

Norwich.—Reconstruction of the kitchen and stores accommodation at the Poor Law Institution, for the T.C. :—

*Harry C. Greengrass & Sons, Ltd., 58, Pitt-street, Norwich £4,649

Prestwich.—Two "A" type houses on the Polefield estate, for the U.D.C. :—

*J. Berry, Ltd., Chapel-street, Heywood.

Ryde (I. of W.).—Swimming pool. Mr. E. Lawson, architect, 19, Ridley-place, Newcastle-on-Tyne :—

*C. Langdon, Ryde.

St. Ives.—45 houses on Bullen's-lane site, for the T.C. :—

Chapman & Sons, Newquay ... £19,350 0 0
— Blewett, St. Mabyn 17,110 0 0
— Rundell, Truro 15,500 0 0
— Lobb, Mevagissey 13,731 0 0
W. T. Fairbrother, St. Ives ... 13,695 0 0
— Jovy, Connor Downs 13,488 0 0
*W. Thomas, St. Ives 13,295 10 6

Southend-on-Sea.—Installation of heating apparatus at Brewery-road school, for the C.B. :—

*Watkin Heating Co. £944 10

Sevenoaks.—Alterations and additions to the Council offices, at Inglewood, Oakhill-road, for the R.D.C. Messrs. Arthur W. Cooksey & Partners, architects, Adam-street, Adelphi, W.C.2. Quantities by Mr. E. R. Mabbs, St. James' Place, S.W.1:—

†S. Beswick, Cramptons-road, Sevenoaks £2,789

Sunderland.—Shop premises and dwelling-house in Hylton-road. Messrs. J. H. Morton & Son, architects, Martin's Bank-chambers, South Shields:—

*J. Jennings, Alfred-street, South Shields.

Tottenham.—Houses on Weir Hall housing estate (Section L.), for the U.D.C. Mr. H. F. Wilkinson, engineer and surveyor:—

P. Bygrave, Tottenham	£23,280	0	0
F. Golay, Grange Park	18,986	16	0
W. Tout, Ltd., Hendon	18,071	6	4
Engineer of the Council	17,482	0	0
H. Knight & Son, Tottenham	17,076	0	0
W. Manders & Co., London	15,594	1	4
Turner & Payne, Finchley	15,309	0	0
Building & Public Works Co., Ltd., Swindon	12,916	0	0
A. Hopwood, Ltd., London	12,364	0	0
A. E. Brown, Ealing	11,509	18	4
*M. J. Gleeson, Ltd., Sheffield (In lieu of previous tender.)	10,516	18	6

Swansea.—Supply of gates and railings at the civic centre, for the T.C.:—

*A. J. Maine & Co., Ltd. £726 3 3

Tweedmouth.—Erection of the new St. Cuthbert's R.C. School. Mr. Robert Burke, architect, 12, Grey-street, Newcastle-on-Tyne:—

*W. Whitley, Berwick-on-Tweed.

Wakefield.—Demolition of the Old Registry of Deeds building, clearance of site and erection of modern stores at Kirkgate, Cathedral end, for Messrs. Marks & Spencer, Ltd.:—

*Bovis, Ltd., London.

Wayland.—12 houses, for the R.D.C.:—

Six houses, Attleborough—
*S. Tennant & Sons, Watton £1,411 0

Four houses, Besthorpe—
*S. Tennant & Sons, Watton 936 10

Two houses, Kenninghall—
*S. Tennant & Sons, Watton 451 0

Wolverhampton.—Shelter in the West Park, for the T.C. Borough Surveyor:—

*H. J. Amies & Sons, Wolverhampton £199

Wolverhampton.—Extensions to Oxley Park Golf Club House, for the T.C.:—

*A. M. Griffiths & Son, Ltd., Wolverhampton £459

Wrexham.—12 flats on the Acton Park estate, for the T.C. Mr. John England, M.Inst.M. and Cy.E., Borough Engineer and Surveyor, Wrexham. Messrs. Lockwood, Abercrombie & Saxon, architects, Cathedral-chambers, St. Werburgh-street, Chester:—

*Wm. Gittins, builder, South View, Aberderfyn, near Wrexham.

The L.C.C. Estimates.

Mr. L. Silkin, in submitting the estimates at the meeting of the London County Council on May 15, said that they were the estimates of the former Housing Committee. In the short time at its disposal the new committee had not been able to review them. He was confident that the committee would proceed with a fuller programme. The committee intended to create the necessary housing machinery and organisation to carry out the great task which the people of London had imposed on the new majority; and shortly after the vacation would put forward proposals to that purpose. While they regarded slum clearance as being a vital task, they must also deal with the hundreds of thousands of people living in overcrowded conditions. Additional accommodation must be provided in great part in block dwellings within the County of London, but they would also have to continue provision of cottage dwellings in estates outside London, always having regard to travelling facilities being available. It was the intention to continue to co-operate with public utility societies. By that means it was hoped to co-ordinate the various housing activities in London.

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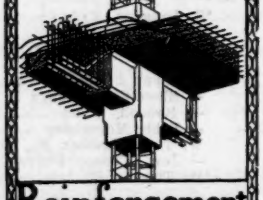
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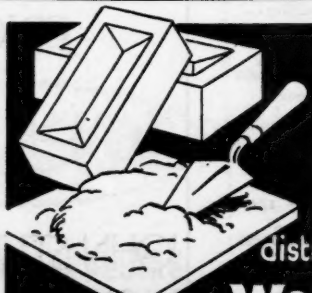
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